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INSIDE DOPE

by GEORGE F. TAUBENECK

Stories of the Month:

Joe Oberc
Joe Krall and
Joe Dugan
Walter Chrysler
General MacArthur
Mrs. Hush
Two Other Guys
Palmero Togliatti
Anonymous By Choice
Remember 'Way Back When'
Honor Without Credit
A Rift in the Exchequer
Post Scriptum

Stories of the Month:

Joe Oberc

Joe Oberc, the Detroit jobber who has recently dedicated an impressive new headquarters establishment, tells this story about his last semi-annual consultation with his dentist (which took place a day or two before the Fourth of July).

When his pearls had been polished up to the *nth* degree of luster, Joe's dentist selected a fresh syringe, and squirted a generous amount of stimulating liquid into his patient's opened mouth.

"Say, I like that stuff," commented Joe, running his tongue over his lips. "What is it, Doc?"

"Bourbon," replied the dentist, casually. "My patients seem to relish it during the summer holidays."

Joe Krall and Joe Dugan

Joe Krall, Tyler Fixture vice president, loves to play poker. But unlike many of his cronies in the industry, Joe doesn't play for fun. He plays for money.

Late one night during an industry convention, Joe was playing the cards close to his vest, as usual. Early in the game he enjoyed a winning streak. But when his luck turned, so did he. Krall had been folding on the third or fourth card for close to an hour when Ben Scholl piped up:

"Come on, Krall put some money into the game. You can't take it with you, you know."

"I guarantee," interjected Bundy's Joe Dugan, dryly, "if Krall can't take it with him, he won't go."

Walter Chrysler

Walter Chrysler was a self-made character who didn't give a damn what anybody thought. He could say anything to anybody—and did.

One of his sons-in-law, Ed Garbisch (a great football player in his time) recalls an instance of Walter Chrysler's go-to-hellness that occurred at the birth of Ed's first child. Walter had only two grandchildren at the time: Thelma and Byron Foy's two girls. (Mr. Foy is board chairman of Jack & Heintz now.)

Ed was so excited when he learned he had become a papa that he dashed madly to phone his father-in-law all the details of the blessed event.

Walter was in a card game at that moment and, after an interminable delay, he came to the phone.

"The baby's here," Ed shouted into the mouthpiece.

"What is it?" asked Walter Chrysler, without enthusiasm.

"It's a girl," Garbisch yelled, proudly.

"Humph," came the disgusted voice at the other end, "another one." And that grunt was followed

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Parts Wholesalers Hit Tendency To Cut Profit Margin

DETROIT—Reducing of margins in the face of rising costs has aroused some refrigeration parts and supplies wholesalers to oppose what they believe might become an industry trend.

The wholesalers contend that their costs have risen proportionately as much as the manufacturers' and that if manufacturers reduce the wholesalers' margin, the latter will lose ground, even despite the increased list prices now asked by manufacturers.

Rent increase of 150%, telephone up 100%, labor costing 83% more, and increased traveling expenses were cited by one wholesaler.

In a letter to manufacturers, R. W. Sheperdson, president of the Standard Supply Co., Worcester, Mass., declared, "Our cost of operation has increased commensurate with yours. Comparatively, it costs us as much to operate as it does you."

"Therefore, we suggest that you

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Condensing Units Off Slightly, Conditioners Up In First Quarter

WASHINGTON, D. C.—Shipments of self-contained air conditioning units took a sharp jump upwards during the first quarter of the year, compared with the last quarter of 1947. According to reports received by the Bureau of Census from 68 manufacturers, one less than the previous report.

Complete condensing unit shipments, however, were slightly off, although hermetics showed a slight gain over the last quarter of 1947. First quarter shipments of complete condensing units are reported at 173,812, compared with 186,425 in the fourth quarter. The bureau, incidentally, has drastically revised its previously issued figures for the fourth quarter, which originally listed 279,063 condensing units, including 185,687 hermetics.

The fourth quarter hermetic figure is now given as 93,049, with first quarter (1948) shipments totaling 97,812. Open unit shipments in the first quarter were 66,081, compared with 82,000 in the preceding quarter. Self-contained air conditioning unit shipments more than doubled, totaling 22,146 in the first quarter, while the fourth quarter total was 9,891. Even greater gains were made by room units, jumping to 11,420 from the previous 4,628.

An increase was also chalked up by heat exchange equipment, which was valued at \$12,086,540 in the first quarter, and \$10,969,522 in the preceding quarter.

Unit coolers dropped slightly to 22,473 from the 26,858 of the fourth quarter.

U. S. To Continue Sales Data on Annual Basis

WASHINGTON, D. C.—Statistical data on air conditioning and commercial refrigeration sales will continue to be taken by the Bureau of the Census, but will be reported henceforth only on a yearly basis.

The Bureau had formerly reported the data by quarters, but earlier this year when a Congressional committee cut the Bureau's appropriations drastically it appeared as though the Bureau might not be able to collect the data at all. However, in the final recommendations approved by Congress the Bureau is to collect the data, but on an annual basis only.

Admiral Buys Pressed Steel's Appliance Dept.

To Continue Production On 'Presteline' Line Of Electric Ranges

CHICAGO—Admiral Corp. has acquired by purchase the appliance division of Pressed Steel Car, Inc., which has been producing and merchandising an electric range from a plant at Hegewich, Ill.

Announcement of the purchase was made by Ross D. Siragusa, president of Admiral, and John J. Snyder, president of Pressed Steel. The "Presteline" brand of electric ranges will be merchandised by George T. Stevens & Associates, under an exclusive arrangement with Admiral.

The purchase makes available to Admiral all of the electric range manufacturing facilities of Pressed Steel, including equipment, certain inventories, and trade names. The Hegewich facilities offer about 280,000 sq. ft. of plant area.

Siragusa declared that the acquisition may be expected to increase Admiral's domestic appliance sales from 22% to 35% of the company's revenue by the end of 1949.

Admiral will continue the production of Presteline electric ranges at the Hegewich plant and expand the facilities for making the Admiral line of ranges.

Legg Is President of Refrigeration Corp.

NEW YORK CITY—Edward R. Legg has been elected president of the Refrigeration Corp. of America, a subsidiary of Noma Electric Corp., reports Henri Sadacca, president of Noma.

Legg also becomes general manager of Noma's Refrigeration and Stangard-Dickerson Divisions, which manufacture home and farm freezers, commercial refrigerators, ice cream cabinets, air conditioned candy cases, and plate coils. The Refrigeration Corp. handles sales for these two operating divisions.

He was formerly a vice president of Jack & Heintz Co. and prior to that was assistant general sales manager of Kelvinator Division of Nash-Kelvinator Corp.

Walter Raskin, for many years works manager of Stangard-Dickerson Corp., which Noma recently purchased, has also been placed in charge of manufacturing operations at the Refrigeration Division plant.

Dates Revised For '49 Marts

CHICAGO—Dates for the Chicago homefurnishings markets for 1949 have been changed so that there will be no conflict with holidays at either the Winter or Mid-Year Marts.

As reported in the NEWS, plans had been made originally to move the 1949 Mid-Year market back further into July, but pressure from the buyers was so great that the date for the Winter market was moved back a week, and the Summer market dates moved up a couple of weeks, so that they are now as follows for 1949:

Winter—Jan. 10-21.

Summer—June 20-30.

Dates for the 1950 and 1951 markets, also announced, fall at approximately the same time of the year as those announced for 1949.

Chicago Convention Bureau officials warned that hotel accommodations might prove more difficult to obtain.

Coolerator Reports On Progress Under New Management

CHICAGO—Coolerator Co. distributors from 36 states, Alaska, and England, in a special meeting held during the first week of the Mid-Year Marts here, heard company officials assure them that the new management intends to push the promotion of the Coolerator name and Coolerator products in a vigorous manner.

The Coolerator Co. was recently purchased by the Gibson Refrigerator Corp. and new top management officials were named.

"The full-page-in-color advertisement in the July 10 issue of the *Saturday Evening Post*, is evidence of the manner in which the new ownership and management intends to promote the Coolerator name," declared Ward Schafer, recently named vice president and general manager.

"The Gibson Co. will bring many benefits to the Coolerator management in terms of an understanding of the business, and added financial and technical assistance," Schafer asserted.

"We are going to get more production and we are going to make the

(Concluded on Page 4, Column 4)

Philadelphia Opens Co-op Freezer Drive

PHILADELPHIA—Three major objectives spearhead the two-month cooperative home freezer drive sponsored by the Electrical Association of Philadelphia, which got off to a rousing start recently in political convention atmosphere.

The aims are:

1. To inform and educate the public on the advantages of home freezers.
2. To show dealers and salesmen how best to promote and sell freezers.
3. To enlist the support of frozen foods processors because they and freezer distributors are mutually dependent.

Scheduled to run during July and August, the campaign was introduced to some 300 dealers, distributors, and salesmen at a "convention" meeting in the Edison building, chairmaned by John A. Morrison, managing director of the Electrical Association.

Parading "delegates" waving placards led by a brass band gave a "political" atmosphere to the event, especially apt in view of Philadelphia's playing host to the Republican and Democratic national conventions this year.

During the campaign store demonstrations of freezers will be arranged for dealers through cooperating distributors. Lasting about an hour, these store showings will feature home economists furnished by the distributors to conduct a complete demonstration of the home freezer and its various uses.

Strong support to the campaign

(Concluded on Page 2, Column 5)

Peerless Announces Increase In Prices

CHICAGO—Peerless of America, Inc. here, manufacturer of commercial evaporators and other refrigeration equipment and accessories, has announced price increases on all orders received after July 12.

The increase was 10% on all products with the exception of Peerless "Flash" coolers, on which the increase was 5%.

Substantial increases in the cost of copper and aluminum, principal materials used in fabrication of the company's products, necessitated the increases, company officials stated.

New Provisions For Franchises Are Suggested

Kelley of Frigidaire Predicts 'Survival Test' Soon for Retailers

CHICAGO—With an estimated 70,000 outlets of one kind or another handling appliances in the country today, "a very high mortality of dealers is bound to come in the not too distant future," Harry M. Kelley, manager of appliance sales for the Frigidaire division, General Motors Corp., told the Fourth Leadership Conference of the National Electrical Retailers Association here last week.

Terming such a prospect unfortunate but inevitable, Kelley warned against "following the price cutting spiral down to . . . destruction."

Instead, he advised, "the only thing a dealer who wants to survive can do is to sell. Sell his brand, sell against the future orphan brand, sell the features of the products he sells, sell his services, his integrity, and his business ability. . . ."

The dealers and manufacturers' representatives attending the mid-year conference also heard:

Julius E. Kovach, chairman of the NERA committee on franchises, outline nine suggested provisions which, he said, "dealers would like to see in all franchises." (Text of provisions appears elsewhere in this issue.)

C. M. Davidson, chairman of the NERA committee on grey markets, present a nine-point program for combatting the "cancerous" growth of the grey market appliance dealer.

An outline of the 1946 and 1947 NERA cost-of-doing-business surveys. (Reported in detail on page 14 of this issue.)

A report on the Toledo experiment of NERA's sales personnel plan for recruiting and training high caliber appliance salesmen. (Covered in detail in the June 14, 1948 issue of the NEWS.)

William E. O'Brien, general sales manager for the Toastmaster products division of McGraw Electric Co., remind dealers that "every traffic appliance customer is a potential purchaser of a major appliance."

Kovach, who operates the Paramount Good Housekeeping Shop in Racine, Wis., indicated that dealer franchises could stand some improvement and asserted that "the manufacturer and distributor who develops a better franchise will find consumers beating a path to their dealer's door."

He stated: "During the past six months the need for franchise improvement has indeed come home to roost. We have found that increased production has not solved our problem as it was thought six months ago it would."

(Concluded on Page 29, Column 1)

Steel Price Boost May Be Double-Barreled

PITTSBURGH—A double-barreled increase in the price of steel may confront steel consumers in many parts of the country.

Under the new f.o.b. pricing policy which the steel industry is following after a Supreme Court decision holding against the basing point system of pricing, will result in Detroit appliance and automobile manufacturers finding the cost of cold-rolled steel from Pittsburgh increased about \$6 a ton, according to steel company officials.

Also, it is understood that U. S. Steel Corp. is about to grant a wage increase that may jump prices another \$6 or more per ton.

Seeger To Consolidate Household Production In Evansville Plants

ST. PAUL, Minn.—Before production starts on the 1949 Coldspot refrigerator, probably in February, the Seeger Refrigerator Co. plans to consolidate all household refrigerator production in Evansville, Ind. and prepare for production of 1,800 refrigerators daily on a two shift basis, Walter Seeger, president, has announced.

The proposed production figure is double the present rate of about 900 daily.

Seeger declared that from 1,500 to 2,000 more workers will be added to the payrolls, bringing the total to more than 5,000 persons. This, he pointed out, will increase the annual payroll by approximately \$4,500,000.

Seeger said that a third shift will be kept in reserve for abnormal and peak demands. He asserted that expansion plans also call for erection of a new building and re-engineering of present plant facilities in Evansville.

Shifting production from St. Paul to Evansville will permit the company to manufacture component parts, such as evaporator coils and condensers, which are now purchased from other manufacturers, in the company's St. Paul plant, according to Seeger.

He added that the entire expansion program will allow Seeger to diversify its production, maintain more continuous operation, and fortify its competitive position.

Gesick Elected Treasurer Of Mills Industries, Inc.

CHICAGO — Edward J. Gesick, formerly assistant secretary and assistant treasurer of Popular Mechanics Co. of Chicago, was elected treasurer of Mills Industries, Inc., at a recent meeting of the board of directors, it was announced by Ralph J. Mills, who is chairman of the board.

In addition to Mills, the board now consists of Herbert S. Mills, president; A. E. Tregenza, executive vice president (formerly executive vice president of Jefferson Electric Co., Bellwood, Ill.); Simms D. McGuire, president of Beloit Dairy Co.; and Fred L. Mills, Jr., son of the former president of Mills Industries.

Robert Hertz Will Direct Store Planning for Fogel

PHILADELPHIA — Appointment of Robert Hertz as director of the Fogel store planning division was announced here recently by William Fogel, president of Fogel Refrigerator Co.

Hertz, a former designing engineer, has had 20 years experience in both small and large store layout. He has worked on cocktail lounges, restaurants, and kitchens, as well as food stores.

In his new capacity, Hertz will assist, advise, and inform Fogel dealers and distributors on modern food market planning. This service is rendered free of charge in most cases, according to Fogel.

Ruling on Premium Pay Effective September 15

WASHINGTON, D. C. — Enforcement of a new interpretation under the Fair Labor Standards Act regarding certain types of premium payment, necessitated by the recent Supreme Court decision in the long-shore cases, will not go into effect until Sept. 15.

Enforcement had been scheduled to begin July 1.

In ordering the postponement, William R. McComb, administrator of the Wage and Hour and Public Contracts Division, U. S. Department of Labor, said that information from both labor and management sources indicated that more time is required to make appropriate adjustments or, where necessary, to make revisions in collective bargaining agreements, due to varying requirements of union agreements as to reopening of contracts.

Federal Reserve Reports May Inventories Up over '47

NEW YORK CITY—Inventories of washers, stoves, ironers, and cabinets in department stores in the Second Federal Reserve District on May 31 stood 69% higher than they were on the same date last year, the Federal Reserve Bank of New York has reported.

The Second Federal Reserve Districts includes the entire state of New York, northern New Jersey, and the southwestern tip of the state of Connecticut.

Tri-State Distributor Named for I-H Freezer, Refrigerator Models

PITTSBURGH—J. A. Williams Co. here has been appointed by International Harvester Co. as distributor for International Harvester refrigerators and freezers in the Tri-State area, which includes portions of Pennsylvania, Ohio, and West Virginia.

H. J. Washburn, Pittsburgh branch manager for International Harvester, and Leroy L. Williams, president of the Williams Co., presented the product and explained sales plans at a meeting of distributor salesmen and Harvester representatives. In the Williams organization, Quincy P. Carvel is sales manager for Harvester products, Charles Weaver, Jr., is advertising and sales promotion manager, and Miss Jean Prester is home economist.

Territory served will be Trumbull, Mahoning, Columbiana, Carroll, Harrison, Jefferson, Belmont, and Guernsey Counties in Ohio; Hancock, Brooke, Ohio, and Marshall Counties in West Virginia; and Mercer, Lawrence, Beaver, Venango, Butler, Allegheny, Washington, Greene, Fayette, Somerset, Westmoreland, Cambria, Indiana, Armstrong, Clearfield, Jefferson, Clarion, Elk Forest, Erie, Crawford, Warren, Potter, and McKean Counties in Pennsylvania.

The Tri-State appointment is Harvester's twelfth addition to the group of established wholesale appliance distributors for representation in large metropolitan areas. In addition to J. A. Williams Co. are Equipment Distributors, Inc., Boston; Bruno-New York, Inc., New York City; R.C.A.-Victor Distributing Corp., Detroit; General Utilities Distributors, Inc., Chicago; Butler Brothers, St. Louis; Radio & Appliance Distributors, Hartford; Elliott-Lewis Electrical Co., Philadelphia; Dealers Appliance Co., Kansas City; Thomas Distributing Co., Los Angeles; McCormack & Co., San Francisco; and Dulaney's, Inc., Oklahoma City.

All have territories corresponding to the natural trading areas of the cities where they are located, and all are serviced by Harvester company-owned branches, as are the several thousand Harvester general line dealers coast-to-coast, who have signed refrigeration contracts and who complete the company's national distribution coverage.

Westinghouse Raises Prices On Some Motor Models

BUFFALO — Buffalo division of Westinghouse Electric Corp. has recently announced an increase in the price of some electric motors, engine-driven generators, and industrial control equipment.

Motors up to 200 hp. and generators up to 150 k.w. were increased 5%, while all industrial control equipment was upped 10%. Higher wages and material costs were cited as reasons for the higher prices.

Freezer Campaign--

(Concluded from Page 1)

will be given by advertising. The Electrical Association will run 12 450-line advertisements in the three metropolitan daily papers during July and August which will include the freezer trade names of the participating distributors.

In addition, a 14-in. advertisement will be run in a local neighborhood newspaper of the dealer's choice to support the freezer demonstrations scheduled by the dealer. The advertisement will feature the brand of freezer handled by the dealer and the dealer's name.

At the introductory meeting, the featured speaker was Larry Beville, director of refrigerator sales for International Harvester Co., who asked that the tested specialty selling techniques that so successfully put over the electric refrigerator back in 1928 be used today for freezer promotion and sales.

"A large percentage believes the home freezer is a luxury," he declared. "This is caused by the easing of the black and gray markets and laziness of selling organizations generally."

Urging that all the dealer and salesmen take home a freezer to discover its advantages for themselves, Beville further suggested, "Buy \$4 worth of meat, buns, and vegetables to display in the freezer. That will make the freezer talk."

Opening event on the program was a demonstration by Chairman Morrison on how much food a 4-cu. ft. freezer will hold, which turned out to be 40 varieties in 90 packages weighing 190 lbs.

George W. Whitwell, vice president in charge of sales for the Philadelphia Electric Co., outlined the market possibilities for freezers, which was followed by a demonstration of how easily freezer-frozen foods could be prepared. This was handled by Miss Consuelo Kelly, General Electric Appliance home economist.

Final event was the appearance of newsboys on the "convention" floor distributing special editions of the Philadelphia Daily News with screaming Page 1 headlines: "Home Freezers Win by a Snowslide!" Another banner read "Every Major Make Represented as Convention Is Called to Order."

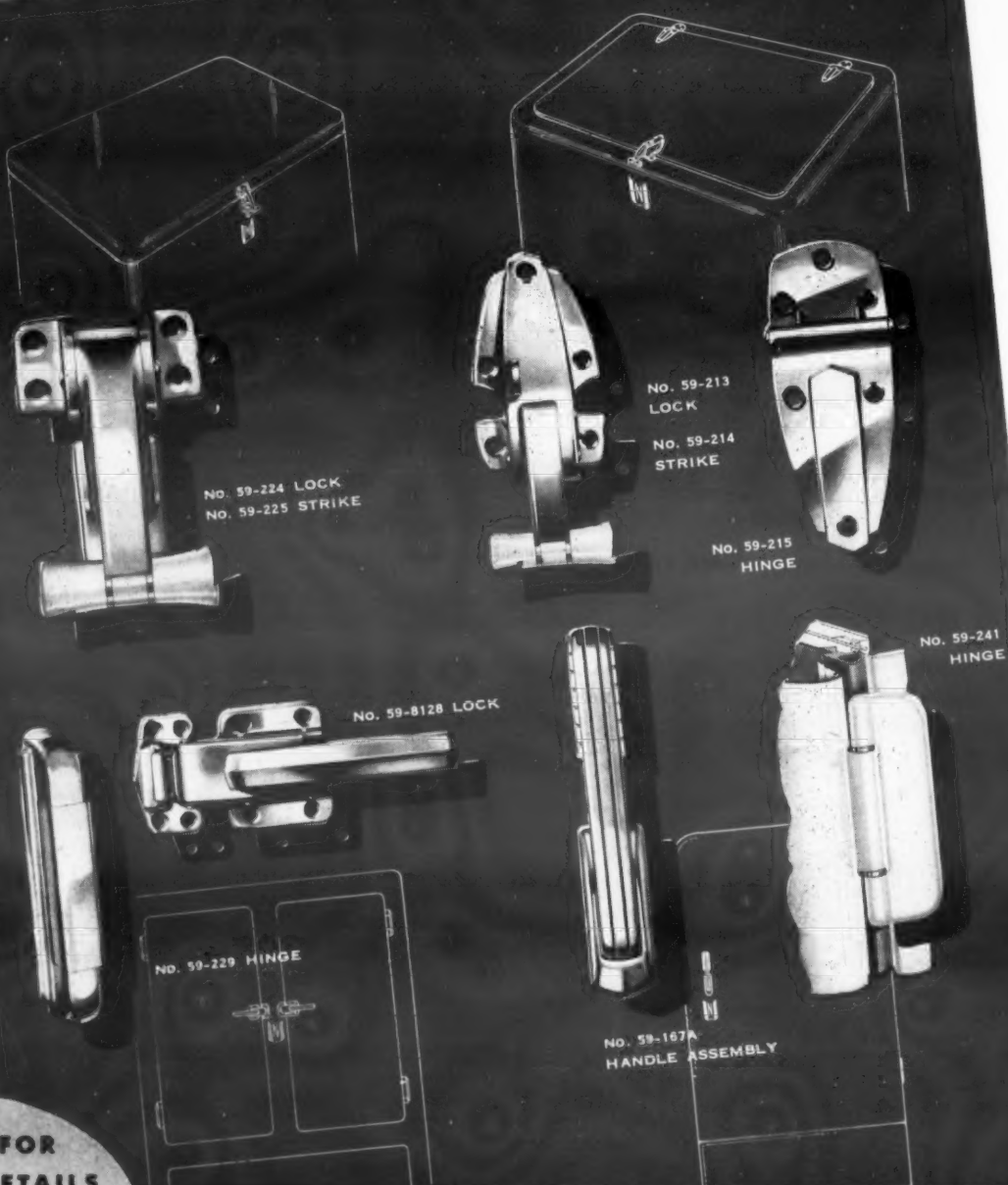
Makes displayed at the convention by the participating distributors were listed also: Coolerator, Deepfreeze, Frigidaire, Philco, Frostmaster, General Electric, Gibson, Hotpoint, International Harvester, Kelvinator, Maytag, Norge, and Wilson Zerosafe.

The distributors who are joining in the promotion include Judson C. Burns, Elliott-Lewis Corp., General Electric Appliances, Inc., General Electric Supply Corp., Maytag Sales Co., Peirce-Phelps, Inc., Philco Distributors, Inc., J. J. Pocock, Inc., Raymond Rosen & Co., Inc., and Trilling & Montague.

The plan committee which mapped out the drive includes C. M. Sherwood, J. T. Peirce, J. A. Rafferty, E. W. Seese, R. A. Sholl, and John Morrison.

see **NATIONAL LOCK** first

FOR LOW TEMPERATURE REFRIGERATOR HARDWARE



WRITE FOR
DESIGN DETAILS
ON
SURFACE,
"THRU-THE-DOOR"
AND
"EDGE-MOUNTED"
TYPES

NATIONAL LOCK COMPANY

ROCKFORD • ILLINOIS
REFRIGERATOR HARDWARE DIVISION

The Multiplex Bar Dispenser Is A "LIFETIME FIXTURE"

DISTRIBUTORS WANTED!

If you are in a position to handle sales, installation, and service for Multiplex Fixtures to Bars and Taverns—it is quite possible for you to add \$50,000 or more in sales per year.

NEW MODEL 14

Multiplex

STAINLESS STEEL
UNDER-BAR, SOFT DRINK
DISPENSER

- MANUFACTURES, fresh carbonated soft drinks (seltzer, cola, lemon, ginger-ale, etc.) as easily as drawing a glass of beer.
- ELIMINATES BOTTLES—SPEEDS BAR SERVICE
- INCREASES THE PROFITS OF BARS TREMENDOUSLY

WRITE US FOR ILLUSTRATED BULLETIN AND PRICES

MULTIPLEX FAUCET CO. Manufacturers
4325 Duncan Ave. Dept. ARN-14, St. Louis, Mo.

Manufacturers of Soft Drink Dispensers for Over 40 Years.



ALL ALONG THE LINE...



Copelametic, the Accessible Hermetic, combines the best features of welded-in and open-type units. Eliminates belts, seals, manual oiling. Models from 1/20 H.P. to 3/4 H.P. Model K-33 is shown.

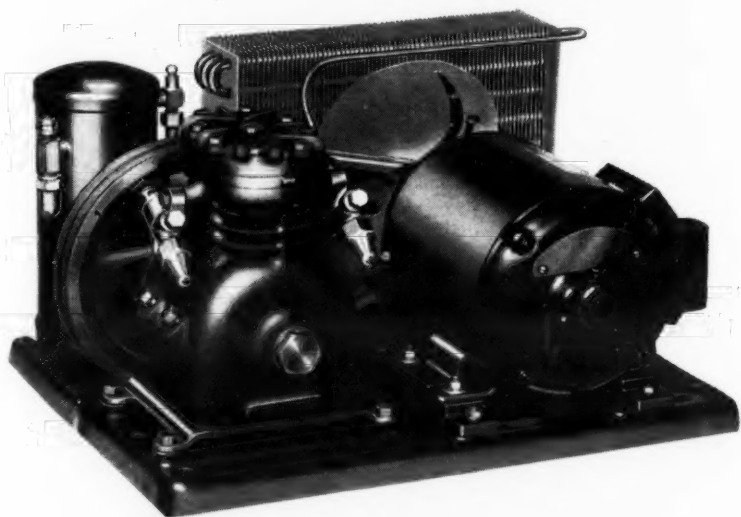
Copeland

DEPENDABLE *Electric* REFRIGERATION

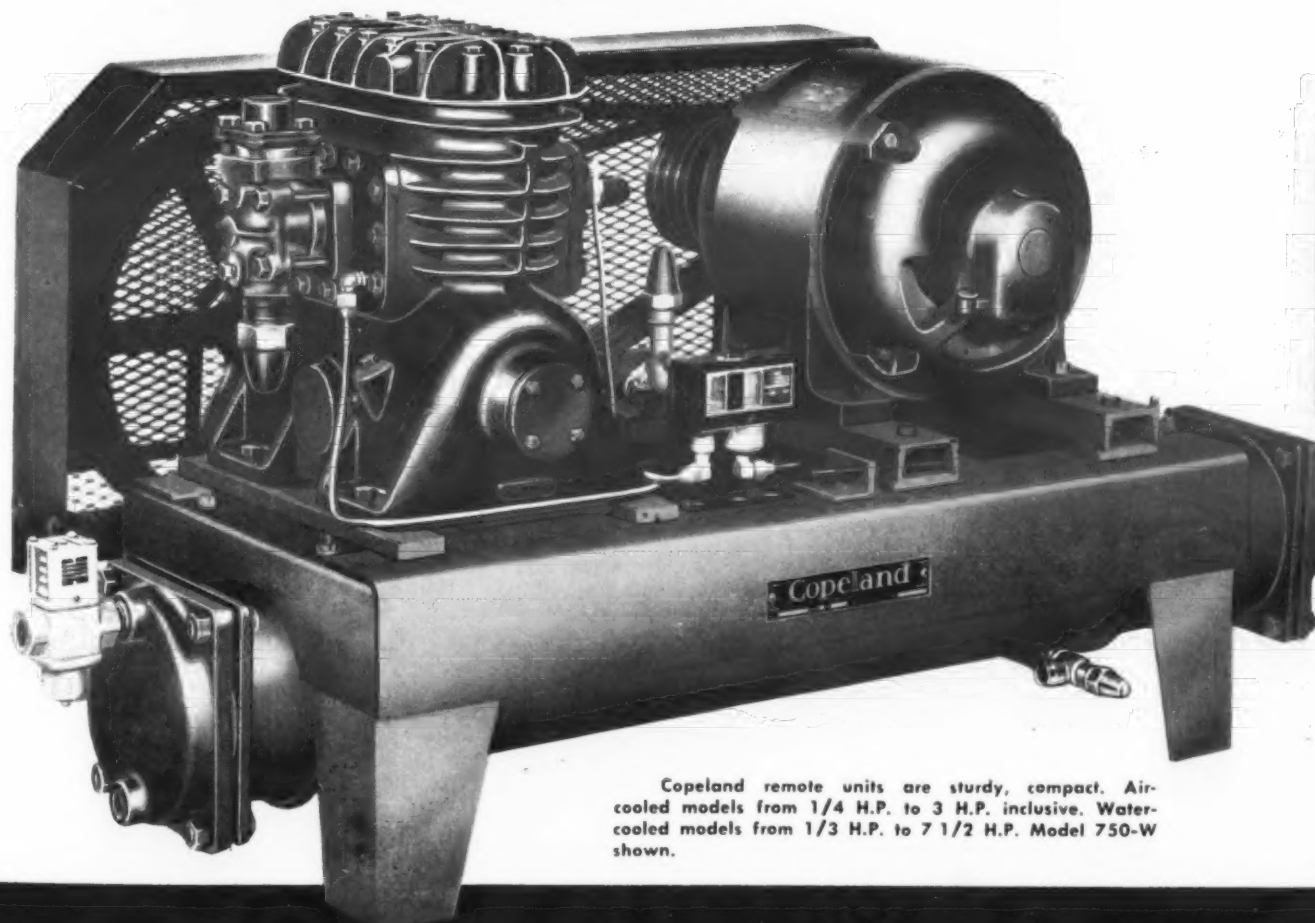
Keeps Customers Happy

Name any type of refrigeration and air-conditioning installation and you'll find Copeland equipment at the heart of it. That's another reason the Copeland line is more profitable — it's so all-inclusive you can quote on any application.

More than 30 years of leadership and a continuous program of advertising and promotion do a grand job of pre-selling for you. Look at electric refrigeration from any angle — the facts make a beeline to Copeland.



Compact belt-driven units for self-contained installation range from 1/6 H.P. to 1/2 H.P. A model for every range of refrigeration temperature. Model 334 is shown.



Copeland remote units are sturdy, compact. Air-cooled models from 1/4 H.P. to 3 H.P. inclusive. Water-cooled models from 1/3 H.P. to 7 1/2 H.P. Model 750-W shown.



Copeland electric water coolers and household refrigerators are smart-looking, low-cost in operation, thoroughly dependable.

Shown are the Pressure Type (PB-10), Bottle Type (C-5) and the CD-489, 9 cubic ft. Deluxe Refrigerator.

COPELAND REFRIGERATION CORPORATION • SIDNEY, OHIO

New York Office: 71 West 23rd Street

Export Department: 60 Wall Tower, New York City

Field Men Told How Ads Function as Sales Levers

SOUTH BEND, Ind.—Using an advertisement as a merchandising lever is the only economically sound means of producing appliance sales results through advertising, Stewart Roberts, director of advertising and sales promotion for Bendix Home Appliances, Inc., told field managers at a recent sales conference.

"Advertising of major appliances is not an end in itself, but a device for getting things done. It must be tied in closely with merchandising activity to bring about an economic gain," Roberts declared.

Two primary purposes are:

"First, you focus the attention of the dealer on the product and its merchandising.

"Second, you bring the customers in to the merchandise and push the merchandise out to the customers."

He named eight check-up points for distributor wholesale salesmen in preparing a dealer for "the event of running an advertisement."

He can check whether the product is ready for a live demonstration, whether the dealer is prepared to make a demonstration properly, whether the display is in order and the flip-chart is in place, whether his stock is ample, whether the window display is ready or in good trim, whether the dealer has consumer literature available, whether outside selling is organized and functioning, whether the dealer is prepared to make a telephone canvass.

He commented that there are too many dealers saying: "Business is terrible. I even ran an advertisement and didn't get any business."

New President



EDWARD R. LEGG
Named president of the Refrigeration Corp. of America.

Brass & Copper Sales Sets Up Supply Office In Kansas City

ST. LOUIS—Brass & Copper Sales Co. here has established a refrigeration supplies division, handling both refrigeration and air conditioning supplies, at 510 Wyandotte St., Kansas City, Mo., H. H. Hubbell of the wholesaling firm, has announced.

William G. Hobstetter, Jr., has been named district manager there, he added.

Hubbell also reported that Charles L. Sands is now working out of Decatur, Ill. covering that part of the firm's territory.

Elmer Biechler, Retired Frigidaire Head, Dies

DAYTON, Ohio—Elmer G. Biechler, former president of the Frigidaire Division, General Motors Corp., died here July 5 of a heart ailment. He was 58.

He played a vital role in Frigidaire's rise to its important position in the refrigeration industry, 30 of his 58 years having been spent with Frigidaire and the parent company Delco Light.

In 1914 Biechler joined the Dayton Engineering Laboratories, which is now the Delco Division of GM. He became president of Delco in 1924.

In 1926 when the Frigidaire Division was created, he became the first president and general manager, serving until 1943 when he retired because of ill health.

Early in his career Biechler was employed as a shipping clerk for a Dayton firm, but he soon became purchasing agent, and then a salesman, and before he was 22, he was selling the company's products in a six-state territory.

May Factory Volume In Stokers Surpasses April Level by 36%

WASHINGTON, D. C.—Factory sales of 6,627 mechanical stokers in May exceeded sales for April by 36% and were 22% above sales for the corresponding 1947 month, according to the Bureau of the Census.

Of the total sales, 5,658 were for residential use other than apartments, and 287 were for small apartment houses and commercial establishments.

Many Distributors from Southwest Show Up



Included in this group attending Coolerator's meeting for distributors are: Sydney Mayer of Albert Mathias & Co., El Paso, Texas; Ken Gillespie and Deb Gaines of Jenkins Music Co., Kansas City, Mo.; Charles Ely and Jack Mussey of General Appliance Co., San Antonio, Texas; Jim Booth of the Schoellkopf Co., Dallas, Texas; Al Seligman of the Straus-Frank Co., Houston, Texas; and District Managers Frank Kennedy and Hap Vaughan.

Coolerator Plans--

(Concluded from Page 1, Column 4)
product and price more competitive," declared the new Coolerator vice president.

William C. Conley, Jr., Coolerator sales manager, told the distributors that the company "will meet fully" allocation of the model DR-88 refrigerator, and that shipments will be made early in August on the new 9.2-cu. ft. \$259.95 model DU-91 introduced during the Mart.

He declared that the home freezer field offers a good volume business to appliance distributors, but that many of them neglect it.

"Compare it, for example, with ironers," said Conley. "Intense promotion effort is put behind ironer sales—store and home demonstrations, plenty of advertising, yet its dollar volume does not begin to approach that of home freezers."

Using a chart recently published in AIR CONDITIONING & REFRIGERATION NEWS, Conley showed that whereas it took four years for household electric refrigerators to achieve a volume of 600,000 units a year, home freezers had achieved an 800,000-per-year mark after the first four years of its existence.

"Coolerator has a separate plant for the manufacture of freezers, and can produce quality freezers in quantity, but it's up to the distributors to push the sale of this product as a specialty item," declared Conley.

Lillian Anderson, home economist from the University of Minnesota, conducted a clever demonstration on home freezers, showing how the use of a freezer results in better foods for home use, and reduces meal preparation time. In a skit which was worked in as part of the demonstration, Miss Anderson and an assistant showed comparisons between the canning and freezing methods.

Coolerator's advertising plans were outlined by Earl Lines, of the W. W. Garrison Co. advertising agency. Lines urged the distributors to get the full benefit of advertising in the Saturday Evening Post and other national magazines by tie-ins at the time the advertisements appear. He also outlined some special advertising plans for the home freezer.

Coolerator plans for 1949 will be announced in a national distributors' convention to be held in the Fall.

Frank Corp. Handles Crosley In South Carolina, Georgia

SAVANNAH, Ga.—The Frank Corp. of Savannah, headed by Raymond M. Kuhr as president and M. S. Goldman as appliance manager, has been named distributor for Crosley.

The firm will serve Appling, Atkinson, Bacon, Brantley, Bryan, Bullock, Candler, Chatham, Clinch, Coffee, Effingham, Evans, Glynn, Jeff Davis, Jenkins, Liberty, Long, McIntosh, Pierce, Soreven, Tattnall, Toombs, Ware, and Wayne Counties, in Georgia, and Allendale, Bamberg, Barnwell, Beaufort, Berkeley, Charleston, Colleton, Dorchester, Hampton, Jasper, and Orangeburg Counties, in South Carolina.

Cunningham Moves to Detroit

DETROIT—W. E. Cunningham, comptroller of Frigidaire Sales Corp.'s Pittsburgh branch for the past three years, recently assumed a similar post at the Detroit office.

A veteran of 22 years with the corporation, Cunningham succeeds D. B. Charles.

Conley Wins First J. E. North Electrical Award

CLEVELAND—First winner of the J. E. North Award, in recognition of his outstanding contribution toward advancing the sale of electrical equipment or service in Greater Cleveland for the ultimate benefit of users, is W. E. Conley of the General Electric Co. here, the Electrical League of Cleveland has announced.

Conley is district engineer in northern Ohio and western Pennsylvania for the G-E lamp department. As 1947 winner he received a testimonial certificate and \$100 "for his zeal and in assisting the people of this community to achieve and enjoy the advantages of modern lighting in schools, stores, office and public buildings, and industrial plants, and for his outstanding services in promoting the progress and welfare of the Electrical Industry."

A similar testimonial certificate was given to the General Electric Co.

The award, established in honor of J. E. North, president of the Electrical League of Cleveland for 26 years and general sales manager of the Cleveland Electric Illuminating Co., is to be awarded annually by the league to one of the 10,000 employees of league members "as formal recognition of individual thinking and exceptional endeavor" in the industry's behalf.

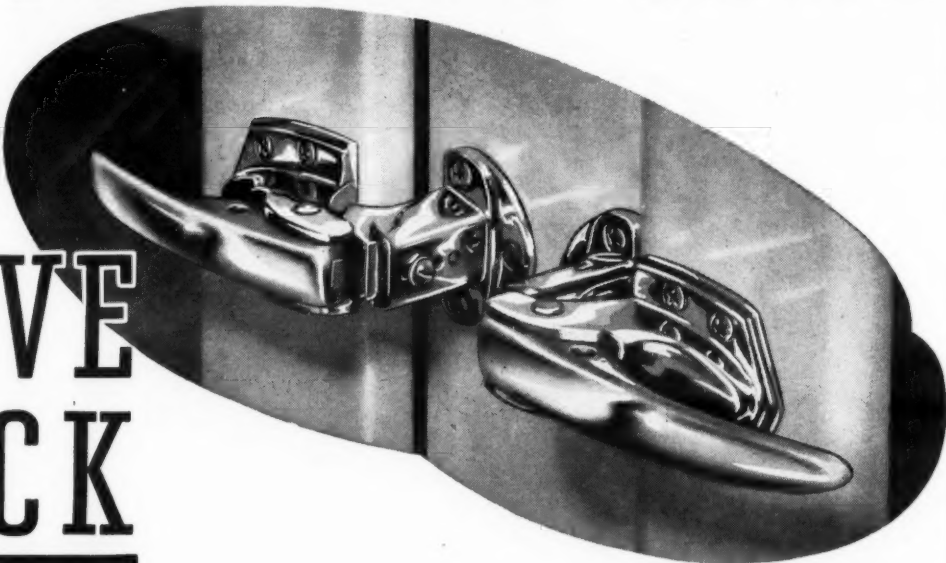
Revere Follows Suit, Raises Mill Price 5%

NEW YORK CITY—Following the lead of others in its field, Revere Copper & Brass, Inc. has raised prices on copper and copper alloy mill products about 5%. Recent wage and freight rate boosts were cited as the factors behind the new move by C. Donald Dallas, Revere chairman.

He pointed out that the approximate 8% rise in wages now operative in some plants and pending in others would amount to about a 9 to 16 cent-an-hour increase.

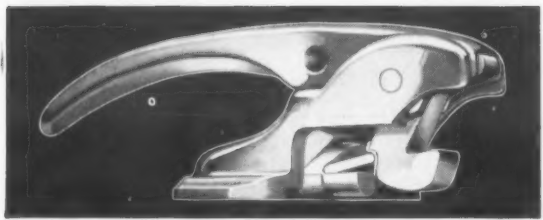
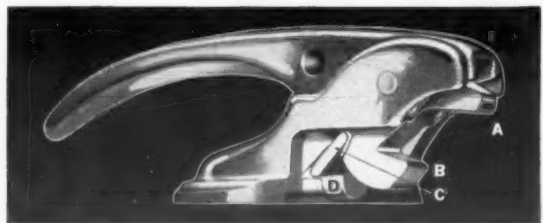
FOR a POSITIVE SEAL

Install a POSITIVE LOCK



And that goes for replacement, too!

Service men are coining easy money—making themselves "solid" with their customers—by installing Grand Rapids Brass locks and hinges on leaky commercial cabinets and back bars. Jobs like this may run into three figures—plenty of profit, plus time charges. Ask your jobber for our service manual . . . providing sure-fire selling tips and installation short-cuts with detailed working drawings. Act NOW—here's real money in your pocket.



THE LOCK WITH THE Living Action

This patented lock construction never relaxes its upward grip. When the trigger (A) touches the strike, that under-shot jaw (B) takes hold like a bulldog . . . with constant pressure from a powerful coil spring operating on an off-center plate (C) through the concealed bolt (D). That's why we call it "The Lock with the Living Action" . . . a principle exclusive with products of the Grand Rapids Brass Company.

Ask your jobber for locks and hinges by Grand Rapids Brass



When it TRIPS it GRIPS

Grand Rapids Brass Company
Division of CRAMPTON MANUFACTURING COMPANY
Grand Rapids 4, Michigan

IN AIR CONDITIONERS

Ameri-therm LEADS IN VALUE

THINK TWICE . . . ABOUT PRICE!

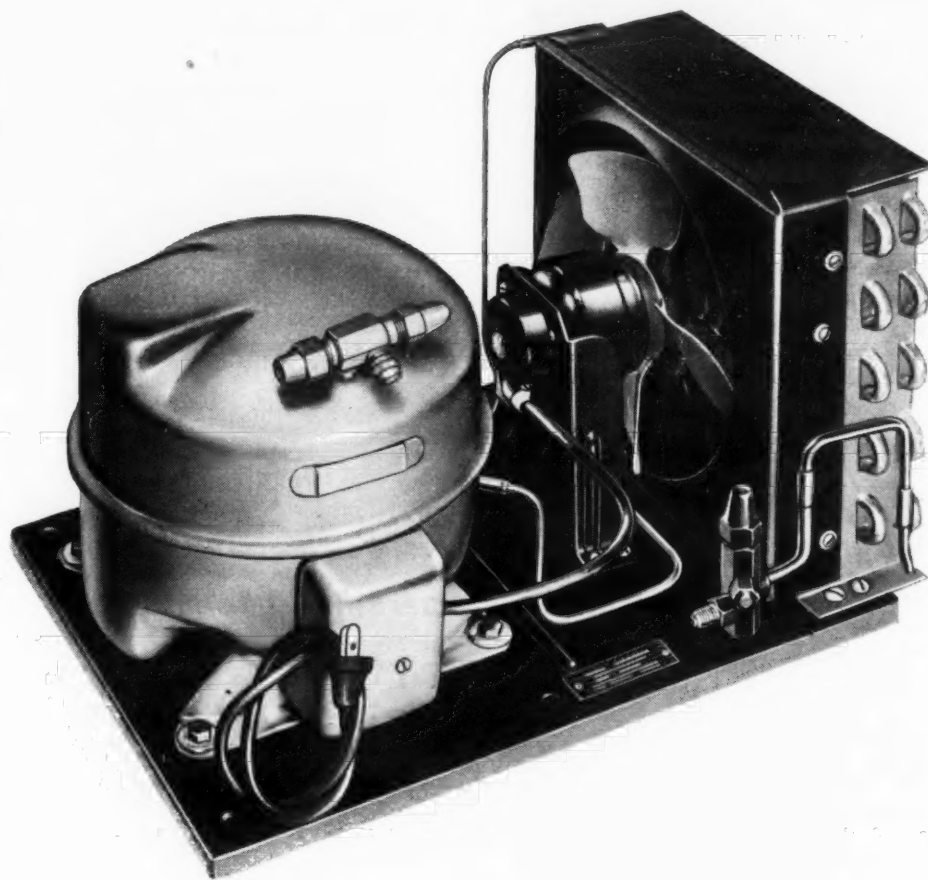
In packaged air conditioners, price is only half the story; value is what counts! Actual comparison by independent researchers proves that only AMERI-THERM has all the "PLUS" features that mean greater value to your customers . . . and greater net profits to you!

Send for our free Comparison Chart!

Exclusive dealerships still available.

AMERICAN THERMAL INDUSTRIES, INC.
442 ILLINOIS • DETROIT 1, MICH.

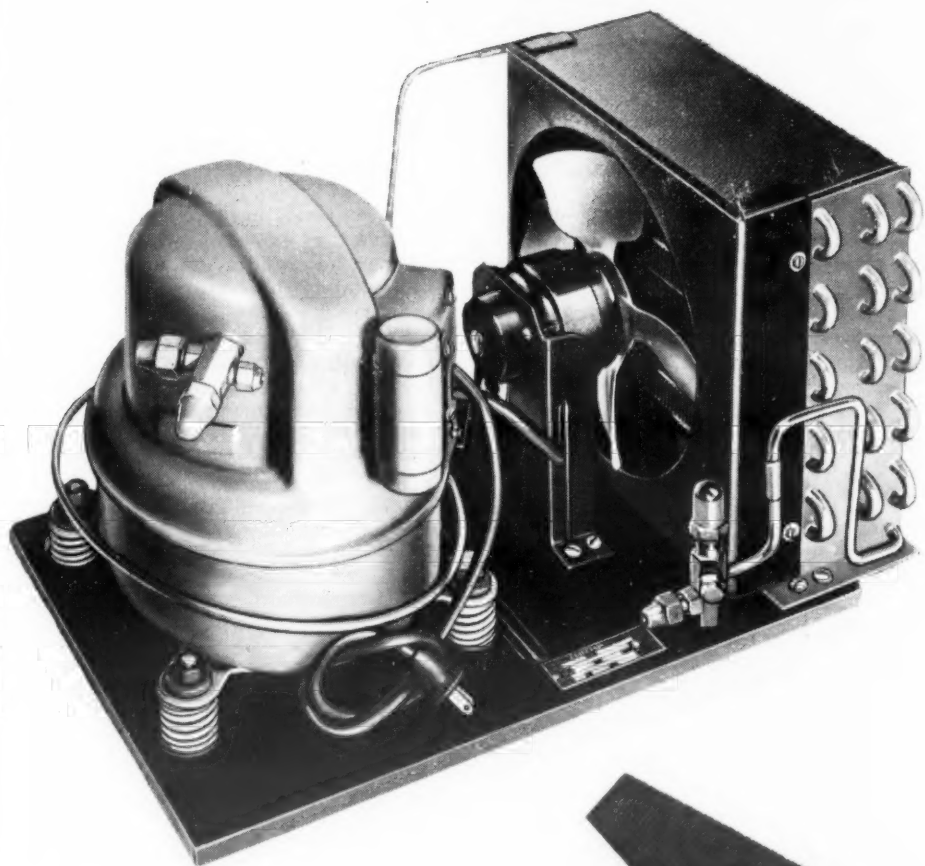
Over a Million a Year!



TECUMSEH HERMETIC UNITS LEAD THE INDUSTRY IN QUANTITY AND QUALITY

You don't have to dig deep . . . just scratch the surface and you'll find plenty of good substantial reasons for the industry's preference for reliable Tecumseh Hermetics. They're smooth, quiet, dependable in operation . . . compact, sturdily built . . . designed, engineered and produced to give you maximum long-life performance at minimum cost.

And take a look at some of their details of extra-value construction: ☆ Careful selective fitting of all moving parts assure high volumetric efficiency, economical operation and top trouble-free performance. ☆ All bearings are super-finished by diamond boring, bearingizing and Micromatic honing; limits of .0001" (one ten thousandths part of an inch) held on bearing parts. ☆ Suction intake above the motor practically eliminates oil circulation through the system. ☆ Intake and discharge mufflers effectively eliminate all pumping noise. ☆ Forced feed lubrication assures constant oiling of all reciprocating parts. ☆ Starting relay current actuated . . . nothing to wear out. ☆ Temperature and current actuated overload protector prevents overheating of the motor from any cause. ☆ Fusion welded steel shells . . . hermetically sealed, tamper-proof. ☆ Fan motor sealed in oil. ☆ Single cylinder models internally spring mounted, twin cylinder models externally spring and rubber mounted for freedom from vibration and noise. ☆ Compactness of design reduces space required for unit compartment. Available in models from $\frac{1}{8}$ to $\frac{1}{2}$ horsepower . . . with various combinations of compressors, motors and condensers to cover a wide range of domestic and commercial applications. Write for complete information today.



Chieftain



TECUMSEH PRODUCTS COMPANY
Tecumseh, Michigan

*The world's largest independent
producer of compressors and
condensing units for the
refrigeration industry . . .*

Weights In at Only 1,700 Pounds

At the right is one of Nichols-Foss Packing Co.'s magnesium bodied refrigerated trucks, weighing 3,000 lbs. less than the conventional truck with steel body.



Magnesium Truck Body Saves Packing Company Money on Original and Operating Expenses

BAY CITY, Mich.—By using magnesium instead of steel, the Nichols-Foss Packing Co. here has lopped 3,000 lbs. off its refrigerated truck bodies, cutting operating expenses and improving employee morale and efficiency, the packing company points out.

Similar bodies made of steel weigh about 4,700 lbs. With magnesium this is cut down to 1,700 lbs. The lighter weight permitted use of a 1½-ton truck chassis instead of a 2½-ton chassis, which is higher in both first and operating costs.

The truck refrigeration system consists of two Kold-Hold hold-over truck plates mounted on opposite sides of the body. The latter is insulated with Dow Chemical's

Styrofoam. The plates are pulled down to 45° F. when connected to the refrigerating system overnight, which is sufficiently cold to refrigerate meat satisfactorily for a 12-hour period.

The truck hauls between 5,000 and 8,000 lbs. of meat in its daily delivery runs, and has been in service for two years. Gas consumption has been low, tire mileage high due to reduced weight, and maintenance simple and inexpensive, it is claimed.

Drivers do not tire so easily, and are said to be more interested in increasing sales and keeping the truck attractive in appearance. It handles more like a passenger car than a delivery truck, according to the driver.

Worthington Names H.T. Anderson To Head Newly Formed Section

HARRISON, N. J.—Worthington Pump & Machinery Corp. has announced the appointment of Harold T. Anderson to the newly created office of assistant to the general sales manager, in charge of sales production relations, with headquarters here.

Anderson is responsible for receiving and interviewing representatives of customers' organizations who visit the Harrison Works seeking information regarding production schedules of specific orders.

It is expected that the office "will provide a smoother channel for expediting, and advance the over-all customer-relations program," the company said.

A mechanical engineering graduate of Stevens Institute of Technology, Anderson has been employed by Worthington in various capacities since 1924. He joined the sales department in 1940 and was engaged in sub-contracting activities until 1944, when he was transferred to the steam power division of the general sales department.

American Refrigerator Names Distributor in Minneapolis

MINNEAPOLIS—American Refrigerator & Machine Inc. here has announced the appointment of Paramount Refrigeration at 2311 W. 9th in Los Angeles as its distributor.

Whipped Cream Problem 'Whipped'



The white porcelain refrigerated display case in the center made it possible for the Purity-French Bakery to continue sale of whipped cream items throughout the summer months.

Refrigerated Display Case Allows Summer Sales Of Highly Perishable Bakery Specialties

RENO, Nev.—Steady promotion of whipped cream baked goods, displayed in a \$1,000 white porcelain refrigerated case, has been responsible for a substantial increase in sales at the Purity-French Bakery here, according to A. Baldini, owner.

Baldini had the case installed one year ago in the center of a series of dark mahogany cases arranged in the form of a U. The refrigerated display case, stocked with whipped cream cakes, eclairs, cream puffs, and other bakery specialties, faces the door and attracts the immediate attention of patrons, according to Baldini.

"We formerly had to give up producing any of these products as soon as the weather began to warm up in late spring," Baldini declared. "Now, however, it is a year-round feature and we have found that our summer sales of whipped cream products sometimes exceeds those of winter months."

Baldini offers "party service" to hostesses and for such occasions prepares whipped cream products, particularly cream puffs and whipped cream cakes, by the dozens. These are kept in a separate refrigerator at the rear of the store pending delivery.

Las Vegas Market Goes All Out for Self Service

LAS VEGAS, Nev.—One of the largest self-service refrigerator display case installations in the state has been completed here in the Modern Food Shop, huge supermarket, by Sierra Appliance Co., headed by B. H. Robison.

The Modern Food Shop, largest self-service market in the Las Vegas area, is the first to introduce self-service meats, refrigerated produce departments, self-serve dry bottle boxes for beverages, ice cream cabinets, and even a self-service refrigerator for boxed candies.

Equipment installed includes 15 showcases from Weber Showcase & Fixture Co. of Los Angeles, and an 18 x 20-ft. walk-in refrigerator with two overpowered, dome-type coolers.

The meat-cutting room, which serves the self-service cases, is likewise refrigerated down to a 50° temperature to give the meats maximum protection during the entire processing period.

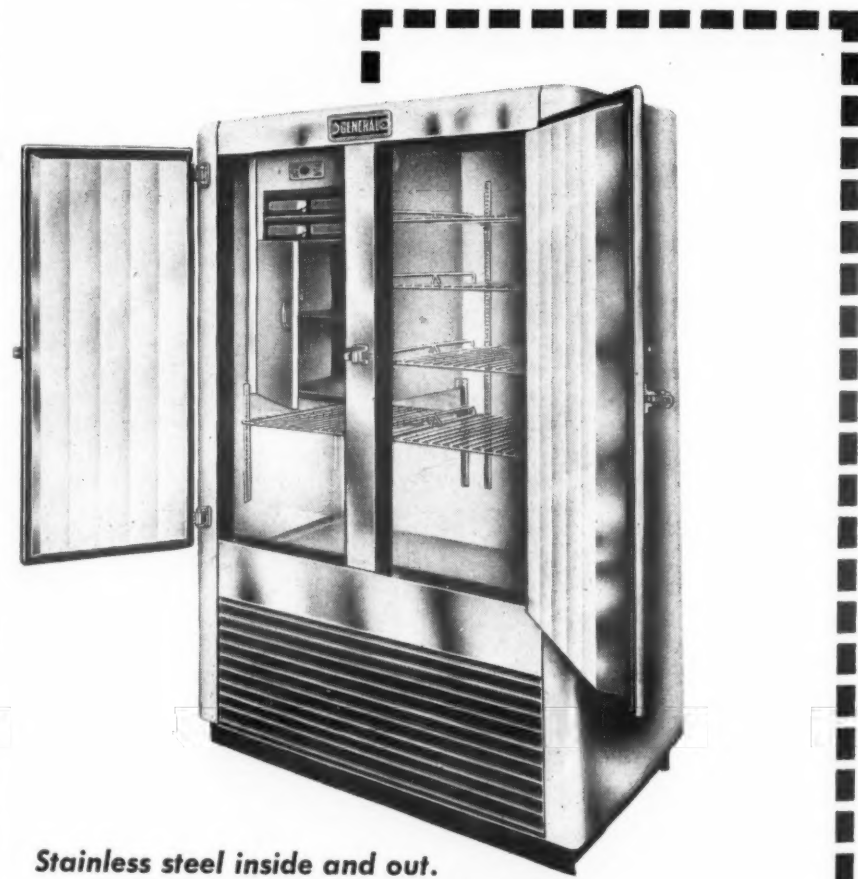
Bird In Freezer Worth More Than 2 at Market

OAKHAM, Mass.—Poultry Farmer Donald Agar here is proud of his new 10 x 10 x 8-ft. walk-in freezer. But he sure wishes he had had it last fall.

At that time, he had dressed 500 fowl but, without freezer storage space, had had to sell them at a low price of 22 cents per pound. Later, the market spurted and chickens were selling for 55 cents per pound.

The same was true of turkeys. After Thanksgiving had passed into history, he still had a large number of unsold birds. Keep and feed for them during the next four months cost Agar \$14 per day. With a freezer he could have dressed them immediately and stored them until they could be sold.

That experience won't be repeated next fall, however, Agar avers. For besides his big freezer for poultry, he also has had a second one installed for his own personal use.



Stainless steel inside and out.
Sturdy, all metal frame with useful combination ice maker and frozen food compartment. Available for immediate delivery in 25 and 30 cu. ft. sizes.



WRITE FOR ILLUSTRATED CATALOGUE

HAVING TROUBLE WITH COLLECTIONS?

SORRY, I HAVEN'T ANY MONEY TO DAY - COME BACK NEXT WEEK



Like most merchants your customer is in the habit of paying for his supplies daily



As a result, there is not enough left to pay lump sums for his refrigerating equipment at the end of the month

Your Answer Is THE METER PLAN

Your customer deposits only a few quarters a day that he never misses



And you hit the JACK-POT every month!



Meter-Matic DM6 Meter

- LOW IN PRICE
- FULLY GUARANTEED
- IMMEDIATE DELIVERY

MAIL THIS COUPON TODAY

INTERNATIONAL REGISTER CO.
2626 W. Washington Blvd.
Chicago 12, Illinois

INTERNATIONAL REGISTER COMPANY
Dept. 78-R—2626 W. Washington Blvd.,
Chicago 12, Illinois

Please send me FREE:

- ☐ How to Collect Delinquent Accounts ☐ Meter Plan for Selling Commercial Refrigeration ☐ Meter Catalog

Company _____
Mr. _____
Street _____
City _____ Zone _____ State _____

Booklet on Freezing Vegetables Cites Need For Care In Blanching

LARAMIE, Wyo.—A folder entitled "How to Prepare Vegetables for Freezing" has been prepared by Mrs. Evangeline J. Smith, nutritionist of the Wyoming Agricultural Extension Service, in collaboration with Emma J. Thiessen, associate home economist of the University of Wyoming research laboratory.

Complete success in frozen food storage hinges upon the following points, the booklet states:

1. Always select the best varieties of food, or those that have given best results, for freezing.

2. Harvest and prepare quickly for freezing.

3. Everything coming in contact with the product to be frozen should be kept very sanitary.

4. Exert care in blanching food. Use only small amounts of the vegetable to one gallon of water. Don't count blanching time until the water comes to boiling point. Immediately chill the vegetable in ice water after blanching.

5. Package the product dry or in brine. But be sure to use moisture-proof containers to guard against dehydration.

The folder contains important information about vegetables grown by the Wyoming agronomy department and continually tested by Miss Thiessen, and including data concerning preparation of meats, poultry, eggs, and fruits for freezing in addition to vegetables.

For Food Freezing



Waxed Paper Containers Require No Inner Liner

NEW YORK CITY—For simplified retail distribution, Continental Can Co. Inc., is now packaging its nested paper containers for home freezer and locker use in units of 25 or less in Kraft bags, the company has announced.

The containers, called "Continental Clean Cups" are similar to the company's containers for cottage cheese and moist foods.

They are taper sided, have two-ply side walls, and are impregnated with paraffin wax. Their strength eliminates the need for an inner liner, they provide a large opening for filling, their snap-in lids facilitate closing, they can be stacked on top of one another, and their round contours provide room for air circulation in the freezer, it is claimed.

With material shortages gradually disappearing, the company states that it plans to merchandise these cups extensively in the home freezer and locker fields.

A 'Natural'

Sports Store Finds Ready Market for Home Freezers

CHEYENNE, Wyo.—Jack's Appliance & Sporting Goods Store here has found that home freezer sales are well within the scope of the sporting goods dealer.

The sporting goods store, one of a string scattered around Colorado, Wyoming, and Nebraska, has been successfully merchandising home freezers for more than a year, both to sportsmen in which to store their fish catches, or animal kills, and to the "ordinary homeowner."

To induce the public to come in and examine the line of three nationally advertised home freezers carried in stock, the Jack's store is offering a "bonus" of \$50 worth of frozen foods with every home freezer purchase—and reports that sales are heavy.

Customers get their choice of a wide range of foods, all the way from frozen frying chickens down to expensive desserts.

May Knoxville Sales Maintain April Level

KNOXVILLE, Tenn.—Appliance sales by local dealers during May held approximately even with April, on a comparative basis, though refrigerator sales fell off somewhat, a report by the Knoxville Utilities Board has revealed.

As only 30 dealers reported for May as compared with 45 for April, comparisons between the two months are difficult. The drop in refrigerator sales from 798 in April to 341 in May was the only significant change in the figures.

The May report follows:

	No. of Units	Value
Home Freezers	48	\$18,056
Refrigerators	341	93,724
Ranges	396	95,756
Water Heaters	170	19,791
Other Major Appliances	43	6,602
Dishwashers	6	2,102
Waste Disposal Units	5	548
Ironers	31	5,079
Washing Machines	520	74,634

This report is compiled from 30 dealers.

DELICACY

Firm Packages Frozen Waffles For New York Market

NEW YORK CITY—Now it's frozen waffles.

A product of Herrick Frozen Foods, Inc. here, these newest delicacies are being marketed locally under the trade name "Fantail." The waffles are prepared daily in the firm's small shop on East Eleventh St. and sealed up six to a box before being frozen.

Fanny Herrick, a home economist who operates the firm, claims the waffles can be popped into a toaster and rendered a piping-hot golden brown within a matter of 60 seconds. This, she points out, avoids the need of using the waffle iron on sultry days as well as the unpleasant job of cleaning up the appliance afterwards.

A six-waffle package sells for 29 cents and is being distributed through the following stores here: Gimbel's, Elm Frosted Foods, London Terrace Market, and Ware's in New Rochelle.

Milady Has No 'Preferred' Method of Fixing Frozen Meat for Table Use

MINNEAPOLIS—Studies made by Isabel Nobel, of the Minnesota Experiment Station indicate Mrs. Housewife has no preference in the way she prepares frozen meat for the table.

Some thaw their meat before cooking; others put it on to cook while still frozen. Many women, Miss Nobel found, choose the slow-thawing method; others want it done in a hurry.

Comparing the time factor among the various processes, Miss Nobel noted that it takes from one and a half to two days for a 4-lb. roast to thaw in a refrigerator, while at normal room temperature the thawing is complete within 8-10 hours. Frozen meat placed on the range to cook takes considerably longer.

In the actual cooking process it's best to maintain moderate burner temperatures even for thawed meat, Miss Nobel cautioned.

Starts sales rolling

the first month he handles the

Deepfreeze

TRADE-MARK REG. U. S. PAT. OFF.

HOME FREEZER



Here's why **Deepfreeze** is the talked-about home freezer...



Check these exciting convenience features! No other home freezer has them all... No other home freezer has as many.



BE SURE TO ATTEND THE FARM AND HOME LABOR SAVING SHOW PRESENTED BY CLEMSON COLLEGE EXTENSION SERVICE MONDAY, NOVEMBER 24, 1947—10 A. M. TO 8 P. M. EXHIBIT BUILDING—STONEY FIELD DON'T MISS OUR DISPLAY ON FARM AND HOME EQUIPMENT CHARLESTON FARM & HOME SUPPLY JUST ACROSS ASHLEY RIVER BRIDGE—DEALERS FOR DEEPFREEZE—PHONE 2-3168 ONLY MOTOR PRODUCTS CORPORATION CAN MAKE A DEEPFREEZE HOME FREEZER

T. M. Beshere, who runs the Charleston Farm and Home Supply down in Charleston, South Carolina, had hardly stowed away his Deepfreeze home freezer franchise when he went into action, organized a campaign, set out after business.

One month later, he took stock of results and wrote an enthusiastic letter to his distributor, the Cannon Distributing Co., Charleston. "We are proud of our sales campaign," he wrote, "not only for the \$4,500.00 volume of business we have enjoyed our first 30 days as a Deepfreeze dealer, but for the great number of live prospects our sales activities and demonstrations have furnished us."

Leads Off by Selling Community Leaders

To begin with, Mr. Beshere knew that every Deepfreeze home freezer sold would help him sell others—that satisfied users would recommend it to friends. So he concentrated on selling community leaders whose word carries weight. This policy, he says, "has certainly paid off. These families have been a definite influence on other families in this community to buy Deepfreeze units."

"Very effective," Mr. Beshere says of the newspaper ads he ran. One of these, about 1/4 actual size, is reproduced at left.

Advertises . . . Puts on Special Demonstrations

While busy selling selected prospects, Mr. Beshere also had other activities under way. He tied in with the County Labor Saving Show—put on special demonstrations—ran large-space newspaper ads—followed the sure-fire procedure that is available to every Deepfreeze dealer. He began cashing in. "We are jubilant over the outlook," he says.

Dealer Helps that HELP

As a Deepfreeze dealer, you, too, can set sales rolling right from the start. You're offered plenty of help in doing just that. You get proved ideas to use—proved materials to work with—18 different types of selling aids. You get a complete line with real features—a steady flow of national advertising. And, above all, you get the benefit of the famous Deepfreeze name—the best-known name in the home freezer field. Get the facts about the Deepfreeze franchise. See your Deepfreeze distributor or write us direct—today.

DEEPFREEZE DIVISION
MOTOR PRODUCTS CORPORATION
NORTH CHICAGO, ILLINOIS

Deepfreeze—the fastest-selling home freezer line



De Luxe Model C-10 Holds more than 350 pounds of food. Price, delivered and installed—\$449.50



De Luxe Model C-5 Holds more than 168 pounds of food. Price, delivered and installed—\$269.95



Model B-10 Holds more than 350 pounds of food. Price, delivered and installed—\$389.50



Model B-5 Holds more than 168 pounds of food. Price, delivered and installed—\$239.95



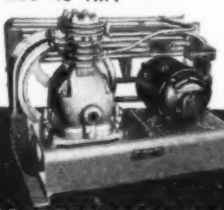
Model B-16 Holds more than 560 pounds of food. Price, delivered and installed—\$599.50



Model A-4 Holds more than 125 pounds of food. Price, delivered and installed—\$199.95



PIONEERS in the refrigeration field since 1917 LIPMAN Machines give dependable service, low cost operation. Designed for use with Methyl Chloride, Ammonia, Freon 12. Units are available in sizes from 1/4 thru 40 H.P.



GENERAL REFRIGERATION
YATES-AMERICAN MACHINE CO., Beloit, Wisconsin

see your **"DETROIT"**
WHOLESALE
for
Expansion Valves
Solenoid Valves
Controls

"DETROIT"

2810

DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE
DETROIT 8, MICHIGAN

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION
Canadian Representatives: RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators
EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

Contractors Await New Ruling on Aluminum Ducts

LOS ANGELES — Refrigeration Contractors Association, Inc. here has advised its members to contact the Department of Building & Safety before installing aluminum ducts, pending a decision by the city on legality of using aluminum ducts for particular applications.

The Building and Safety Commission is expected to release a ruling on the subject in the near future, according to the association. In the past the commission has ruled against the use of aluminum ducts, but has recently relaxed its view to allow some installations. In view of the unsettled state, the association advises checking each job.

American Refrigerator Sells One of Its Plants

MINNEAPOLIS — The American Refrigerator & Machine Co. has announced the sale of one of its plants here to the Bemis Brothers Bag Co. of St. Louis and Minneapolis for a purchase price of around \$300,000.

R. W. Dreher, president and founder of American Refrigerator & Machine Co., said his firm would continue its manufacture of refrigerators, freezers, and bottle coolers in its plant at 2836 Colfax Ave. South, Minneapolis. The plant which was sold to Bemis Bag Co. is located in northeast Minneapolis.

Bemis Brothers will use the building for a packaging service division, according to the Bemis Co.

NRDGA Seeks Gov't Authorization of 'Lifo' Inventory System

NEW YORK CITY—A campaign to gather nationwide dealer support in its fight for government recognition of the right of all retailers to use the Lifo plan of inventory valuation retroactively from 1941 is currently being conducted by the National Retail Dry Goods Association here.

Lew Hahn, president and general manager of the association, assured dealers that the Lifo (last in, first out) method of inventory valuation would benefit the small as well as large retailer.

He asserted that only a small group of stores which made original application for use of the plan and who can meet certain other stipulations set down by the Treasury department are legally empowered to use it.

NRDGA plans to confer with Treasury department officials to see "how far that department can, and will, go to help correct the inequity which stems from failure to authorize use of Lifo by retailers and to set up regulations governing its use," Hahn declared.

It also plans to ask Congress in January for legislation to clarify the "discriminatory" situation. Or, in case a hearing is called in the meantime on a new revenue act, NRDGA will act then, he said.

The association further will ask Congress for legislation to waive the statute of limitations which, Hahn said, is preventing retailers from evaluating inventories on 1941 levels. The Treasury department does not have the power to do this, he noted.

Mackinley Named Engineer At McCray Refrigerator

KENDALLVILLE, Ind. — John Mackinley, formerly assistant to the president and manager of the refrigeration division of Jack & Heintz Precision Industries, Inc. of Cleveland, has joined the McCray Refrigerator Co. as a refrigeration engineer in the product research department, the latter firm has announced.

Mackinley was responsible for setting up Jack & Heintz' first refrigeration laboratory.

Arthur Galston Retires As Puro Corp. Officer

NEW YORK CITY—Arthur Galston has retired as vice president and secretary of the Puro Filter Corp. of America but will continue as a director of the firm.

Following Galston's retirement, officers of the company were: Arthur J. Sloss, chairman of the board; G. B. Becker, president; Samford L. Maier, vice president; Nelson Jarshauer, treasurer; R. A. Sloss, secretary; H. F. Kellershon, vice president in charge of production; and A. DeVries, assistant treasurer and advertising manager.

PHOTO SALES

His 'Picture Book' Clinches Commercial Prospects

MEMPHIS—Spending from \$5 to \$15 for commercial photographs of every refrigeration installation, large or small, is simply "common sense merchandising," says C. E. Hendricks, head of Memphis Refrigeration Co.

Hendricks, who operated a Memphis bank for five years before opening up his refrigeration sales and service firm, has followed this practice religiously. Two salesmen carry complete books of 8 x 10 photographs, mounted under heavy protective plastic covers, and can always flip through the pages to find a job analogous to the prospective one ahead.

"Some of our pictures have sold us from five to 15 installations," Hendricks said.

New Gas-Powered Truck Unit Introduced

LANSING, Mich. — Weighing only 400 lbs., a new gas-engine driven truck refrigeration unit has been placed in production by the newly formed Freezer Products, Inc. here.

The unit is said to operate independently of the truck motor, and when parked it may be operated off 110 or 220 volt 60 cycle current.

Absence of a starter, battery, or any involved electrical control system is claimed to simplify operation of the unit. Temperature is controlled automatically by a snap-action valve.

Refrigeration Helps Farm Animal Biological Firm Process Large Volume

OMAHA, Neb. — About \$500,000 worth of farm animal biologicals are normally kept by the Corn States Serum Co. in a large basement walk-in at its headquarters here.

Said to be the world's largest producer of anti-hog cholera serum, anti-swine erysipelas serum, and hog cholera virus, the firm utilizes refrigeration of medicines from production through delivery, according to Guy H. Williams, president.

Corn States was founded in 1914 and now maintains headquarters and one of its plants in Omaha, another plant in suburban Ralston, and a total of 15 branches. The company, which does a big export business, requires a special refrigeration technique for proper packaging and shipment as well as initial storage. Twenty veterinarians conduct research continually in spic-and-span laboratories with special year-round air conditioning facilities to control temperature and humidity.

Dr. J. D. Ray, nationally known head of research at Corn States, directs a crew of technicians who have come up with some remarkable discoveries during recent years. Since 1946 the firm's scientists have developed two products to immunize sheep against enterotoxemia (an over-eating disease).

Top Men...

in the fixture field
keep costs down with
G-E Condensing Units

REFRIGERATION fixture manufacturers who aim to stay on top are using General Electric condensing units to cut overhead and boost customer satisfaction.

The new G-E hermetically sealed condensing units—built in four basic sealed motor compressor sizes: 1/6, 1/4, 1/3, and 1/2 hp—are compact and easy to install. That can mean dollars and cents saved on every cabinet.

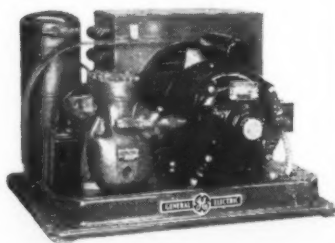
Width and height of the enclosing case are very small. Four bolt holes drilled in each side and in the base facilitate mounting anywhere. A special service valve block simplifies connection of refrigerant lines... makes possible quick system checks. These quiet-operating units cover the complete suction temperature range from +30° to -30°F and are available with or without receivers.

Open-Type Units, too

General Electric also offers a line of open-type condensing units—the CW line. Easy to handle, easy to install, these compact units range from 1/6 to 1 1/2 hp, include 8 air-cooled and 4 water-cooled models. They are G-E engineered for high volumetric efficiency to give you much more refrigeration in a compact, light-in-weight unit.

Get full information on both of these outstanding G-E lines from: General Electric Company, Air Conditioning Dept., Section R8707, Bloomfield, N. J.

GENERAL ELECTRIC
Better Refrigeration



G-E Open-Type Condensing Units—the CW line—range from 1/6 to 1 1/2 hp.

Filtrine
HIGH EFFICIENCY

WATER COOLERS

GALLON FOR GALLON...YOUR BEST BUY!
For Cafeteria use... stainless steel cabinet models in all sizes. For Industrial use... variety of models for temperatures down to 34°
Several choices are available for manufacturers' representatives.

FILTRINE MANUFACTURING CO.
53 Lexington Ave. Brooklyn 5, N. Y.
Manufacturers of Coolers & Filters for over 40 Years

What? No Brass Rail?

Pictured here is the combination television set and refrigerated bar recently introduced by Tri-Boro Enterprises for the man who likes to drink and watch his ball games at home.



Only Tavern Atmosphere Missing from Tele-Bar

CORONA, N. Y.—A new unit being produced here may siphon off some of the currently ascendant popularity of the neighborhood bistro.

As a combination television receiver and refrigerated bar, this product is designed for the elbow-bender who likes his television in the privacy of his own home or office—where the image is less likely to become prematurely blurred.

"Tele-Bar" is what the manufacturer, Tri-Boro Enterprises, Inc. calls the unit. Tavern operators are working on a name of their own.

Housed in a handsome console cabinet, the "Tele-Bar" furnishes the user with a 4-cu. ft. electrically cooled beverage compartment, a standard 10-in. or 15-in. tube video set, and a host of accessories that includes everything but a brass rail. The refrigerated compartment makes and stores over 100 ice cubes and will accommodate bottles or thirsts of any size.

Additional storage space (not cooled) will handle two cases of liquor.

A hermetically sealed condensing unit powers the "Tele-Bar" which comes in a variety of finishes. The cabinet, measuring 41 in. x 48 in. x 23 in. provides an alcohol-proof top for mixing drinks and a drawer for glasses. Interior is lined with stainless steel.

Although the "Tele-Bar" is now being shown at Tri-Boro Enterprises'

Two Dealers' Advertising Honors 1948 Graduates

JAMESTOWN, N. Y.—Two Jamestown appliance stores paid tribute to members of the 1948 graduating class of Jamestown High School with institutional type newspaper advertisements.

Jamestown Home Appliance Co., Brooklyn Square, used an advertisement that depicted a football player running with the ball, while the Royal Electric & Appliance Co. employed an advertisement built around a sketch of the light of knowledge. Said the caption: "Knowledge is Power. Success to the graduates of the Class of 1948."

McNeany's Incorporated At \$100,000 In Beloit, Wis.

BELOIT, Wis.—McNeany's Inc., has been formed here to deal in electrical appliances and equipment and operate a department store. A capital stock of 2,000 shares at \$100 per share par value has been authorized; minimum capital to be \$100,000. Incorporators are E. J. McNeany, Earnest D. Smith, and A. F. Reesman.

Sacrifice Sale!

Self-Contained AIR CONDITIONING UNIT

Ideal for Commercial and Industrial Applications
30,000 B.T.U. Capacity
2 H.P. Water Cooled
either single phase or three phase
Crated F.O.B. Yonkers
Warehouse
Immediate shipment from stock
Write Edw. F. Donnelly
\$495.00
Consolidated Conditioning Corp.
26 West 47th St. New York 19, N. Y.

Farm Wives Want Kitchens For Food Handling Only

MINNEAPOLIS—The ideal farm-house plan would remove laundering, ironing, and washing of farm equipment (milking machines, etc.) from the kitchen and provide auxiliary space for food-handling tasks, according to a study made by Purdue university.

The study was conducted by Catherine Sullivan, of Purdue's School of Home Economics. Findings were reported to the recent 39th annual meeting here of the American Home Economics Association.

Thirty farm families were asked to study eight house plans and indicate which they would use if they were building this summer. They were also asked to indicate present laundry practices and what changes, if any, they would make.

To Solve Trade-In Problem

Dealer Stages Reconditioned Refrigerator Show, Sells More New Models Than Rebuilt Units

ST. LOUIS—When an accumulation of some 25 reconditioned trade-in refrigerators failed to move rapidly, R. C. Leffingwell of Leffingwell Appliance Co. here solved the problem by holding a "Reconditioned Refrigerator Show" which was advertised in neighborhood newspapers.

The old boxes, which incorporated almost every known make, ranged in price from \$49.50 to \$109.50, and were all sold with a 90-day guarantee, after a thorough overhauling, replacement of all parts, fittings, and a 12-hour bench test.

To make a success of the offer, Leffingwell utilized classified sections of two St. Louis newspapers, reach-

ing limited-income districts, promising homeowners years of continuous, dependable service, at low prices.

On the morning after the advertisements were run, the store was crowded, and the refrigerator stock moved out before noon—many young newly-wed couples being conspicuous among the buyers.

"Surprisingly, we sold more new refrigerators from the sale than we had reconditioned boxes available," Leffingwell smiled.

"A lot of people who had taken no trouble to look into the new refrigerator situation, through fear of high prices, lack of delivery, etc., signed orders after visiting the showroom."

Now that famous CROSLEY door!

... more than ever the greatest feature in the appliance business!

Swing back that famous door and you swing wide the door to the easiest-to-get sales in refrigerator history! Start right out with the most powerful sales advantage ever known—the exclusive Shelvador*.

Only the Shelvador* places twice as much front row food right at a woman's fingertips . . . eliminates food-fumbling, spills, bending or stooping. Roomy, transparent food compartments have banished "hide and seek" food-searching.

What's more, everyone goes for that famous door—the Shelvador*—one of the many big reasons why you're "on velvet" with a Crosley franchise! See your Crosley distributor.

THE NEW CROSLEY Shelvador* REFRIGERATOR

MODEL SD 108

Capacity 10.5 cu. ft. refrigeration plus 1.53 cu. ft. in the Storabin

5 great new models

5 great features for more sales . . . more profits

A Shelvador* for every market . . . every pocketbook. FIVE outstanding, practical features that make it first for sales in '48. Just count 'em . . .

1. FREEZIN-COLD Compartment . . . for Frozen Storage
2. NORM-COLD Compartment . . . with Meat-Holder
3. MOIST-COLD Compartment . . . Food Conditioner Section
4. EVER-DRY STORABIN . . . Extra Dry-Storage
5. Exclusive SHELVDOR* . . . Time-and-Work-Saver

*® © 1948 CROSLEY DIVISION

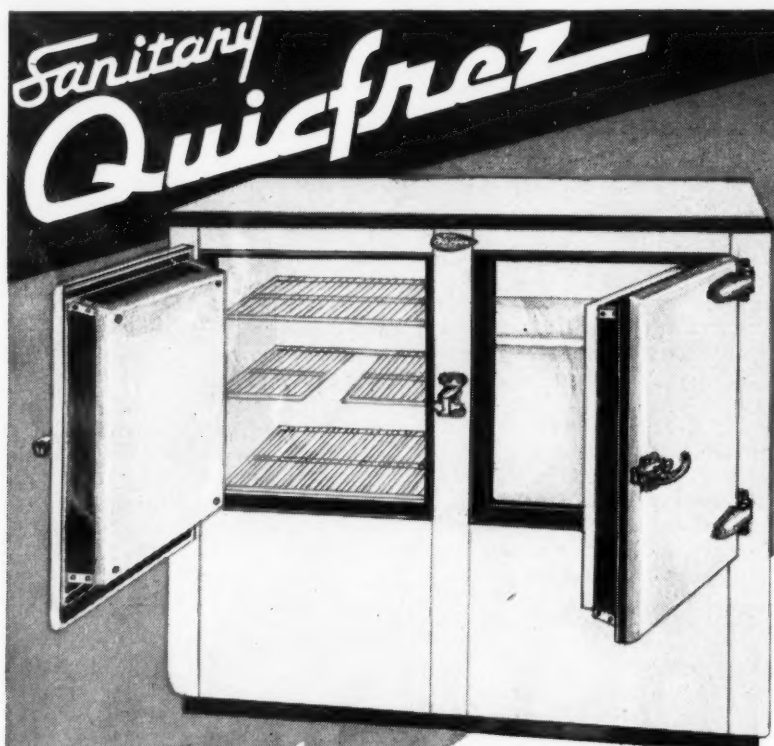


only CROSLEY has the Shelvador*

Shelvador* Refrigerators
Frostmasters - Ranges
Radios - Radio-
Phonographs - FM -
Television - Short Wave
Home of WLW

CROSLEY

Division—AVCO Manufacturing Corporation,
Cincinnati 25, Ohio



TRIZONE

For Every Food Keeping Need

4.5 cu. ft. of normal refrigerator operating at 40° Ave. with 6.25 cu. ft. of zero frozen storage for 250-300 lbs. of meat. 48 1/2" W x 28" D x 40 3/4" H. No. C-1148

\$399.50

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN
Manufacturers of Quality Refrigerators for Over 40 Years
QUICKFREE Farm Locker Plants Since 1939

12-Year-Old Model Fails; Customer Sues

SYRACUSE, N. Y.—A breach of contract action brought by Mrs. Alexina Duhamel against Miles M. Davis here for sale of a 12-year-old refrigerator was dismissed by Municipal Court Judge Harry H. Skerritt. Mrs. Duhamel said she paid \$70 for the refrigerator after being assured it was in good working condition. When she took it to her home, she found it would not work. Davis' defense was that the machine was tipped on its side while being transported.

Florida Firm Challenges Mfr. Minimum Price Act

TALLAHASSEE, Fla.—Florida's Supreme Court has taken under consideration an attack on the validity of the state's 1939 fair trade act, authorizing manufacturers to establish minimum retail prices for their products.

Attorneys for Liquor Stores, Inc., and Webb City, Inc., of St. Petersburg, contended that the act was an unlawful delegation of legislative power and a violation of the federal anti-trust law.

Lawyers for Continental Distilling Corp. declared that the purpose of the act is to protect the "property rights and goodwill" of trademarks and create competition among manufacturers. They said that 44 other states have similar laws which have been upheld by the highest tribunals of 14 states and the Supreme Court.

Freezer Sales Jump 45%, Refrigerators 44% In West Penn Power Area

PITTSBURGH—For the most part, May sales of home electrical appliances in the area of northwest Pennsylvania served by West Penn Power Co. showed substantial gains over the corresponding month of last year, the utility reported.

Decreases of 5% in the sales of laundry equipment and radios and 10% in the sales of cleaners were more than offset in dollar volume by the increases indicated for the following items: roasters, 46%; freezers, 45%; refrigerators, 44%; ranges, 29%; and food mixers and water heaters, 22%.

The six appliances "experienced the best May on record," according to Harry Restofski, West Penn's sales promotion manager.

Certified Lamp sales passed the 500 mark for the first time and total lighting equipment sales once again totaled nearly 10,000 pieces. In general, farm electric equipment sales were at about the same rate as last year. Farm chore motors and water pumps showed much improvement.

Comparative unit sales, based on reports from 633 dealers, were as follows:

Appliance	May 1948	May 1947
Refrigerators	2,246	1,553
Home & Farm Freezers	194	133
Room Coolers	7	25
Ranges	846	653
Dishwashers	48	23
Garbage Disposers	31	20
Clothes Driers	8	1
Ironers	245	285
Washers, Automatic	326	417
Washers, Conventional	1,343	1,323
Radios	2,523	2,944
Water Heaters	446	366
Milk Coolers	57	43

Dealer's Big 'Jamboree' Aids Appliance Volume

SYRACUSE, N. Y.—An Appliance Jamboree with "Five Big Attractions" was staged by the Appliance Center of E. W. Edwards & Son and proved to be a successful promotion, moving a large variety of appliances in good volume.

A free magic show was one of the big traffic builders during the jamboree. This show was presented twice daily in the Appliance Center by a professional magician. Another traffic builder was the showing of the 1949 model of the new Ford.

A cooking school demonstration for a three-day period also drew in many customers. The demonstration included preparation of a complete dinner.

Sixty boxes of soap flakes, an average year's supply, were included with each washer purchase, as another special drawing card.

A \$5.75 kitchen utensil and a complete set of aluminum cookware, went with each range purchase.

Monsanto Chemical Co. Cuts Price of Lustrex

SPRINGFIELD, Mass.—Monsanto Chemical Co.'s plastic division has reduced the price of Lustrex, a plastic. Price changes which are effective immediately range from 2 1/2 cents to 18 cents per pound, depending upon quality. James A. Turnbull, sales manager of the division, said that volume production led to the reduction.

Lustrex is a polystyrene molding used in the manufacture of household, electrical, and automotive items.

With the reductions Lustrex prices will run from 35 cents a pound in carload lots to 44 cents a pound in less than 100-pound lots.

EXPERIENCED MEN CAN SERVE YOU BEST

COMPLETE LINE OF REFRIGERATION SUPPLIES TOOLS AND ACCESSORIES
EACH MONTH THIS FELLOW APPEARS IN THE LIQUID LINE
THE INDUSTRY'S OLDEST HOUSE ORGAN ARE YOU ON OUR MAILING LIST?

WEST COAST SUPPLY JOBBERS SINCE 1928

REFRIGERATION SERVICE INC.
3109 BEVERLY BLVD.
LOS ANGELES 4 CALIF.

Crosley Executives Call for Expansion In Number of Dealerships

CINCINNATI—At the closing session of the Crosley distributors convention here, Corley W. Kirby, Crosley domestic sales manager, told the distributors that "with steadily increasing output of Crosley products the number of dealer outlets must be expanded."

Kirby asked distributors to make a "thoroughgoing" survey of their markets in the next 90 days. The distributors were given survey forms to use in conducting this program. He also urged sales managers and principals of the businesses to get out and take a personal look at some of the markets.

"The television line, with three current models, will be expanded, and we are hopeful of increases in production of the new Shelvador refrigerator if increased supplies of steel become available," he said.

"Crosley is growing and we want our entire field organization to grow with us," Kirby declared. "The present distributor and dealer groups are doing a magnificent job and, in addition to bigger and better business for them, we want to bring into the Crosley picture additional retailers who can meet our standards for quality, and service, as well as reliability."

"Crosley intends to back these products and the dealer and distributor organization with a record campaign of advertising, sales promotion, merchandising, and training, involving the expenditure of millions of dollars," N. C. Macdonald, general sales manager, disclosed.

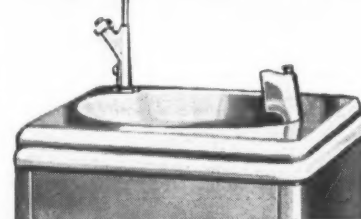
John W. Craig, Crosley general manager and a vice president of Avco Mfg. Corp., concluded the three-day session by asserting that the Crosley organization will continue to expand in both production capacity and product distribution.

"Not only do we intend giving you the finest type of sales effort, but we intend to furnish you with merchandise of fine quality, good workmanship, and proven reliability," Craig told the distributors gathered at the meeting.

Water, water everywhere...

and wonderful to drink when cooled by

Revelation



Now you can enjoy the healthful luxury of drinking water perfectly cooled the Revelation way. Revelation uses only sanitary stainless steel for cooling tank assemblies. Tops are also made from stainless steel.

Dealer Franchises available

★ The last word in...

ELECTRIC WATER COOLERS

Revelation Company

Division of
INTERSTATE ENGINEERING CORPORATION
2250 East Imperial Highway
El Segundo, California

IT WORKS BOTH WAYS

"Same insulation they use in the best commercial refrigerator cases!"



"Same insulation they use in most home refrigerators today"



OWENS-CORNING
FIBERGLAS

THERMAL INSULATION

...a swell feature to have
...a swell feature to sell



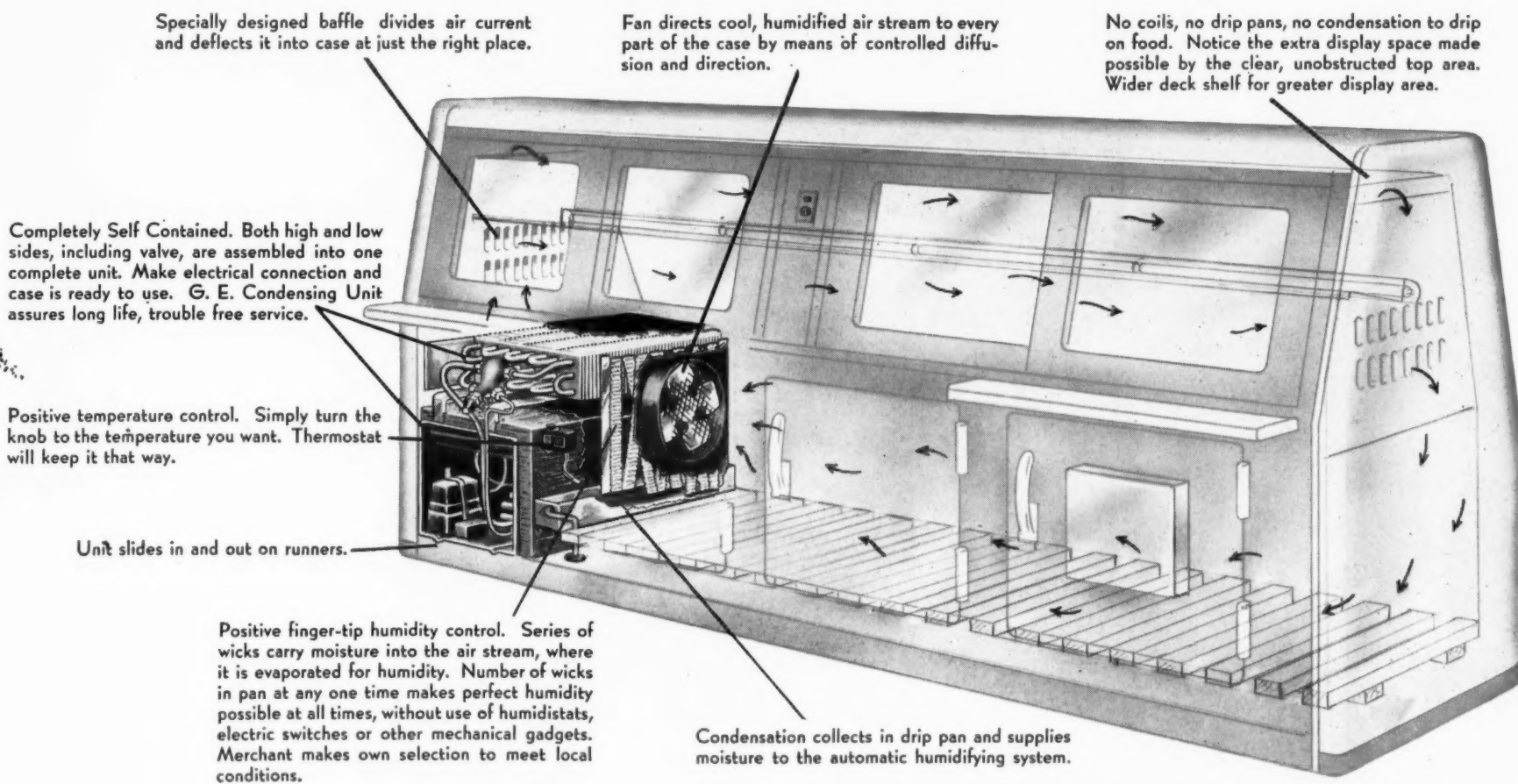
IT'S REVOLUTIONARY!

The All New

Fleetwood Zephyr

Completely Self Contained Display Cases

Here is the most exciting advance that has been made in the refrigeration industry in years . . . display cases with humidity and temperature so right that foods keep in prime saleable condition for days longer. Learn the story about this truly modern equipment that is taking the country by storm.



Positive Humidity Control?—You bet!

Select your own humidity by fingertip control. Choose it to suit the weather and your own local conditions. No more dried out meats . . . no more slimy meats.

Positive Temperature Control?—Yes, sir!

Pick your own temperature. Simple as selecting it on your home refrigerator.

Completely Self Contained?—Completely, but completely!

Compressor and coils (both high and low sides, including valve) are all in one unit. Slide the unit in—slide the unit out . . . nothing to disconnect but the electricity.

Maintenance?—It's so darned simple!

The grilles slide away for cleaning and inspection.

Installation Costs?—Negligible!

Merely connect the cord to the nearest electric line.

More Display Space?—Naturally!

No overhead coils or drip pans to cut down display space or darken the interior.

Appearance?—Just take a look!

It has all the beauty, quality and modern design people know and appreciate in FLEETWOOD Equipment.

Presently available in Double Duty Model, 6, 8, 10 ft. lengths. Will soon be available in complete line of FLEETWOOD Equipment.

Some choice territories still open for franchise to aggressive distributing organizations. Wire or write for full information.



Fleetwood Airflow

INC.

WILKES-BARRE, PA.

CUSTOM-BUILT EQUIPMENT THAT SETS THE NATION'S STANDARDS

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
by the emphatic wham of receiver being slammed down on its cradle.

General MacArthur

MacArthur's occupation of Japan has been a wondrous thing. To a great many Japanese, MacArthur became a substitute for Hirohito, the deposed God-Emperor. Everything MacArthur does is aped, devoutly, by millions of worshipful Nipponese. Wherever he goes, he is the object of awe, veneration, and emulation.

The Nips have tried hard to become Americans, and their strivings toward "democracy" naturally parroted of the Japanese genius for imitation. Whatever MacArthur was seen doing in public, ergo, became the "democratic way of life."

But MacArthur's folk-ways, like those of the American soldiers, were strange customs, indeed, to the Nips.

One day a Japanese boy, clasping the hand of his mother as they watched and listened to MacArthur deliver a speech, could contain his bewilderment no longer. . . . The mighty American God-Emperor had paused to pull a handkerchief out of his pocket and blow his nose in the midst of his speech.

"Mama," cried the little boy, "what's he saving that stuff for?"

Mrs. Hush

A cinemactress whose name we'd be wise to conceal, but whose sexy compellingness is acknowledged by one and all, has a teen-age daughter who is a more-than-reasonable facsimile of her famous mother.

That remarkable resemblance is a handicap to both mother and daughter.

Not long ago this strikingly beautiful girl accompanied her celebrated mother on a trip to an expensive milliner's establishment. There she entertained herself by trying on various hats which reposed on the couturier's many shelves, while her mother fitted around haphazardly.

Donning a wide-brimmed, lace-trimmed confection, the lissome lassie posed before a mirror, and admired her reflection.

"I look like you now, don't I, Mama?" she observed.

"Now, honey," admonished the cinemactress, "don't you be so vain!"

Two Other Guys

Mr. Brown and Mr. Smith were carrying on an over-the-backyard-fence exchange of gossip while leaning on their lawn mowers.

"My son is away at school learning a trade," proffered Smith.

"Really?" politely asked his neighbor, who had been trying to cope with a teen-age son of his own. "When will your boy begin practicing his trade?"

"Chances are, he probably never will, the way I figure it out," replied Smith. "He's just learning a 'trade' so that if he never works at

it, he'll be able to tell his friends what sort of work he isn't doing."

Palmero Togliatti

According to a story currently popular in Rome, an Italian Communist Party Leader, during his Russian indoctrination period, was led to a window, where he saw a shining new limousine parked in the street below.

"Down there," gesticulated the Russian mentor, "you see only one automobile, now. But within a year there will be 10,999 of them, and within five years the Party will have millions."

This parable the Italian understood—then. But when he returned to Rome and attempted to explain to his followers what he had learned in Moscow about the Communist Millennium, he had trouble. Couldn't quite portray the Dream of Future Bounty for Party Stalwarts so that they could see what was in it for them.

Suddenly, he recalled the parable of the limousines. Guiding his cohorts to his office window, he pointed outside, without looking. The Communist Party followers saw only a ragged old beggar squatting against a wall.

"There," the pointer-outer informed his audience, "is a magnificent example of the benefits of Communism. Down there you see only one, but in a year there will be 10,000, and in five years there will be millions of them!"

Unconsciously he was right, but he was shot at sunrise the very next day.

Anonymous By Choice

A 16-year-old lad was applying for a job with a road construction crew. Hoping to enlarge his muscles so as to become a more formidable member of the high school football team, this applicant tried to look and act "tough."

"I'm afraid you won't do, boy," declared the boss, after he had glanced over the applicant's slender frame. "This construction work is rough and heavy, and I doubt if you could stand the gaff."

The boy pointedly gazed out the window, where a number of men could be seen leaning on their shovels, staring vacantly into space.

"Maybe I'm not strong enough to work like those men can, but I sure can do as much as they will," he replied.

The lad was hired immediately.

One of "our boys" who served the U.S. Navy well during World War II tells us that when his ship raised anchor at San Francisco and embarked for an unknown destination "somewhere in the Pacific" he didn't feel so good.

"I frankly admit I was frightened," he confessed, "and so were all my mates. Our first day at sea happened to be a Sunday, and the church services were mighty well attended, let me tell you!"

"One of my friends attended all three services—Catholic, Protestant, and Jewish. When we joshed him about it, he came back with a neat retort we all enjoyed:

"Well, fellas," he declared, 'at a time like this, I'm not taking any chances.'"

Having just witnessed a "sneak preview" of the movie version of a recent novel, its author and the picture's producer were exchanging comments.

"It's an excellent picture," observed the novelist, "but it bears no similarity whatsoever to my book."

"Oh, it's your book, all right," reassured the producer. "All we did to it was effectuate a few minor changes."

"Humph . . . I'd never have recognized my own Baby," replied the author dubiously. "Care if I use those minor changes as the basis for my second novel?"

"No, of course not . . . go ahead," agreed the producer, "just see that you give us an option on the film rights."

This anecdote is contributed by an ex-G.I. assistant editor of the News:

Private Jones strode briskly up to his commanding officer's desk, saluted smartly, and stood at rigid attention. The captain glowered at Private Jones.

"What's this I hear about you getting so drunk at the company beer party last night that you stole our ambulance and drove it around the post at 80 miles an hour with siren wide open?" kerrumphed the irate officer.

"Why, captain, have you forgot-

ten?" replied the insouciant private. "You were standing on the running board, cranking the siren, and yelling 'Banzai!'"

Remember 'Way Back When?

Here are two jokes submitted by the Younger Set in our organization. Don't they make you feel antediluvian? Quote:

"I caught my boy friend necking."

"That's how I caught mine."

"Honestly, darling, you're the first girl I ever kissed," sighed the boy, as he shifted gears in his 1938 Chevrolet with his knees.

Honor Without Credit

For some time the credit manager had coaxed, cajoled, and threatened a delinquent customer without response. Finally, with inspired desperation, he mailed this recalcitrant debtor a pathetic letter. Accompanying this missive was a photograph of the credit manager's baby daughter, underneath which he penned:

"She's the reason I need your payment right away."

Three days later he was gratified to receive his first reply from this stubbornly negligent customer. Eagerly he tore open the envelope, and out dropped a snapshot of a curvaceous blonde clad in a revealing sun suit.

Underneath this photo the debtor had written: "And she is the reason why I can't pay."

A Rift In the Exchequer

A current, and flourishing, school of American philosophy insists that American wives have a tendency to dominate their men.

It is even claimed that these North American Amazons are carrying this frightening trend to the point of selecting their husbands' secretaries. Consequently, a rapid decline in the number of beautiful amanuenses available to executives has been experienced in the business world (so the story goes).

Illustrative of this unfortunate state of affairs is the following tale:

A dejected executive walked into a restaurant, where he was joined by an equally unhappy business associate for lunch.

"My wife has just selected a new secretary for me," he muttered, after exchanging the usual greetings.

His friend brightened up with anticipation.

"Is she a blonde, brunette, or redhead?"

Grumbled the disgusted businessman:

"He's bald."

Post Scriptum

"Good night," caroled the umphatic stenographer as she closed the door to her apartment on her junior-executive Boss, who had taxied her home. And then she added:

"It was nice Noing you."



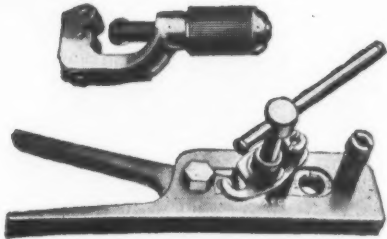
Like a powerful magnet, 'Superior' is proving a real attraction to the many manufacturers and servicemen who demand a better tubing buy.

A definite drawing power in its field, 'Superior' has come to symbolize copper tubing at its best, whether in straight lengths or coils 1" (O.D.) to capillary .093" (O.D.)

A large part of 'Superior's' pull in the tubing market is due to the fact that it is four ways better: is clean and bright, easy bending, seamless and really dry.

After summing up these product advantages, you, too, will want to say 'Superior' when specifications call for the 'tops' in copper tubing. Write Today for full details and colorful literature.

PENN TUBING IS "SUPERIOR"



"Superior"
TUBE TOOLS
For Flaring & Cutting
New, Different & Better
ORDER YOURS NOW
Write for New Literature

PENN BRASS & COPPER CO.
ERIE, PENNSYLVANIA • Phone 35-111

YOU'LL SELL AND SATISFY MORE FAMILIES With the BEN-HUR Line of Farm and Home Freezers

4-WAY SALES OPPORTUNITY

With FOUR Ben-Hur Models — 6, 9, 12.5, and 18 cubic foot sizes — you have four chances to fit any prospect's need exactly. You have the ideal Freezer for the small family, the small-to-average, the average-to-large and the extra-large family, in city, suburban or farm homes. In terms of frozen food quantities, you have a capacity range from 300 to 450, 625, and 900 lbs. of frozen food in the BEN-HUR Line.

Every one of these four nationally-advertised BEN-HUR Freezers is rich in sales features, too. Beautiful styling, table-top design, advanced precision engineering, safety hardware, mechanical perfection — all combine to place the BEN-HUR on top in feature-by-feature selling, and promise years of economical food freezing.

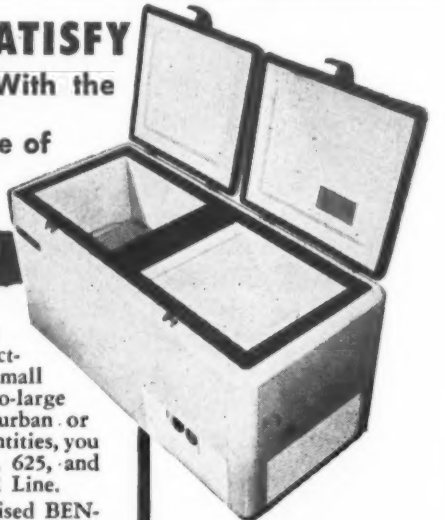
The BEN-HUR Freezer line is a fast-selling, high-profit prestige builder — backed by aggressive national advertising and a powerful merchandising program keyed to results for you. The best dealers are proving this. Only a few territories still available. Write for details.

... Compare them all ... and you'll choose the BEN-HUR Line.

BEN-HUR MFG. CO., Dept. AC

634 EAST KEEFE AVENUE • MILWAUKEE 12, WISCONSIN

BEN-HUR FARM and HOME FREEZERS



Trade-Ins Bring Extra Sales, Good Will, And Some Profit, Says Small Town Dealer

Two House-to-House Salesmen Hunt Out Prospects

DENVER—A new appliance store, which opened in April in Englewood, Colo., a suburb of Denver, finds that its trade-in operation is a major phase of the business, one that contributes to increased sales of new merchandise.

The new store is operated by L. A. Robohm and W. L. Hinkhouse and trades under the name of Robohm & Hinkhouse Appliance Store. Located outside the high overhead district, the store specializes in personalized service. Only branded merchandise is carried, Gibson electric ranges and refrigerators, Jewel gas ranges, ABC washers, and Farnsworth radios as well as various branded small appliances.

According to Robohm, the senior partner, who was a wholesale and retail appliance salesman for the past 10 years, "While the idea of playing up trade-ins is not a new one, it is, however, a tactic that some merchants may frown upon. For us, our stand on this question has worked out admirably.

"We have a fairly good stock of new merchandise, but thus far not enough lines in each category since we have just started the business. We do not intend to turn the business into a second-hand operation but we do feel that the trade-in phase is worth while and we turn all used merchandise immediately, Robohm continued.

"To work up the trade-in practice, we have two house-to-house salesmen. Where there is an appliance that the housewife wishes to trade in for a new item, either myself or my partner go to the home, look the appliance over, evaluate it, and bid on it.

"For example, not long ago, we took in an old refrigerator for \$85. The next day I sold that refrigerator, after a good clean-up and a few minor repairs for \$100. Not much profit, I know, but I sold the prospective customer a new refrigerator which is a sale I would not have made, had I not taken in the old refrigerator. Not only was this sale profitable, but through the trade-in we made a new patron and a new friend.

"Sometimes we only give \$5 or \$10

for an item such as was the case in another recent transaction involving the trade-in of an old washer which was really beyond repair. It did have a good motor, however, which I sold for \$10 and also sold the woman a new washer which had the right markup.

"Occasionally we lose a little money on a trade-in but we chalk that up to the fact that we are just starting our business and that we need new customers. Trade-ins boost sales in new merchandise and we are gradually becoming better-known in this community Robohm continued to point out.

"It seems to me that there is a good potential in trade-ins which some merchants fail to realize. In a small store in a small community, we feel that it has been an advantage to us."

Handyman Pulls a DANDY!

Loaning Truck Costs Plumber \$18 As Installation Goes Sour

ALBANY, N. Y. — City Court Justice Sol Rubenstein awarded an \$18 judgment against the plumbing firm of Saul & Dugan and suggested they "be more careful in the future whom they allow to use their equipment."

Anna McGowan won the suit against the partners, Earl S. Saul and Joseph M. Dugan, who, she claimed, were responsible for improper installation of a gas refrigerator.

She said the refrigerator was delivered in a truck marked "Saul & Dugan" and was installed by one of the two men in the truck. The same day it began to leak gas, she said, and the "Saul & Dugan" truck returned and one of the men repaired it.

Still the refrigerator leaked, Miss McGowan said. So she called the

New York Power & Light Corp., who told her an improper fitting was the cause.

Then, she said, she received a bill on a Saul & Dugan billhead for \$18 for the installation and repairs on the refrigerator.

Dugan appeared in court to say that Miss McGowan never called him and "I never had anything to do with it."

An explanation came from Harold Morgan, who was sitting beside Dugan and who described himself as a handyman who "hangs around Saul & Dugan's place."

Morgan said he borrowed the truck with Dugan's permission (which Dugan confirmed), made the installation, and sent the bill on the firm's billhead. He explained that he found the billhead in the glove compartment of the truck.

U.S. Awards Sunroc Contract for 12th Year

GLEN RIDDLE, Pa.—For the 12th year the sole contract to supply water coolers for the federal government has been awarded to the Sunroc Refrigeration Co.

Under terms of the agreement, Sunroc's contract will cover the period from July 1, 1948 to June 30 of next year, states Orville C. Morrison, president.

Young Appliance, Furniture Incorporates In Cincinnati

CINCINNATI—The R. Young Appliance & Furniture Headquarters, Inc. has been incorporated for retail and wholesale sales in fixtures and appliances.

Richard H. Young who is also president of the R. Young Refrigerator Headquarters, is president of the firm. William L. Game is vice president, and Clarence M. Hook, secretary-treasurer.

GENUINE FRIGIDAIRE PARTS WIN PRAISE FROM SERVICE EXPERTS

Build Customer Good Will

Customers are better satisfied with repair work when it's done with genuine Frigidaire replacement parts, say servicemen. And they are more confident the job will be right the first time. This confidence is justified by results. Adjustments are greatly reduced when Frigidaire parts are used because they're made to the same exacting quality standards as the original equipment.

Easier to Install

These service experts say, too, that Frigidaire parts are easier and faster to install right—because they're made to fit. And Frigidaire's complete line offers the right type and size for every need.

Restore Top Performance

Balanced operation of Frigidaire mechanisms depends on use of precision-matched parts. That's why Frigidaire refrigeration and air conditioning equipment performs so much more efficiently when genuine Frigidaire parts are used for maintenance and repair.

Free Catalog

If you handle refrigeration and air conditioning service, you'll want Frigidaire's brand new Parts Catalog. Contains complete information about Frigidaire valves, switches, seals, copper tubing, V-belt drives, precision-processed oil, filters, strainers and other parts needs. Be sure to get your copy—mail coupon today.

Yes, genuine
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Parts Catalog
service a
it today
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range
frigerator
Built
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\$5,000.00 REWARD!

I represent a client who desires to purchase outright the patents or applications covering apparatus or a method of automatically defrosting a low temperature forced convection coil. The system must use a method other than water. We will pay up to \$5,000 for the patent or application, depending upon commercial value, if the invention meets our requirements and satisfies our patent investigation. Reply in writing only, and give full information.

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105 West Adams Street
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All sulphur dioxide units \$40.00
Freon or methyl.... \$35.00
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FRIGIDAIRE made only by
GENERAL MOTORS

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• WALK-IN REFRIGERATORS
• FARM MILK COOLERS

DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

FRIGIDAIRE DIVISION
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OASIS Electric Water Coolers

Models and sizes for every need—made by the world's largest manufacturer of electric drinking water coolers. The EBCO Mfg. Co., 401 W. Town St., Columbus 8, O.

1ST AT THIRST TIME!



DOORS FOR WALK-IN REFRIGERATORS

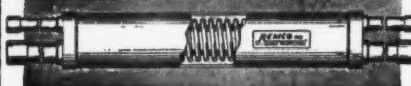
ONLY \$46.00 per set

(Product of Jamison Manufacturing Co.)

One Outside Door 33 1/2" x 73 1/2" and 8" thick. A typical Jamison door frame is included with each door. Two Batten Vestibule Doors with Galvanized Metal on both sides with glass windows measuring 6 1/4" x 8 1/4". Overall dimensions of these Vestibule doors are 14 1/4" x 72" and they are 1" thick. Complete with Hardware and equipped with 8" York Roller Seal.

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Consolidated Conditioning Corp.
26 West 47th St. New York 19, N. Y.

REMCO "Liquid-Fin" HEAT EXCHANGERS



LIQUID flows inside the spiral corrugations in "prime" heat exchange relationship with the colder higher velocity suction gases which travel outside the rapid-transer "Liquid-Fin" heat exchanger element. Capacity per unit size is very high.

ASK YOUR WHOLESALE... OR WRITE
REMCO, INC., ZELIENOPLE, PA.

Dealers' '47 Dollar Sales 43% over '46 But Profits Are Less NERA Study Finds

CHICAGO—Dollar sales of radio and appliance dealers in 1947 were 43% higher than in 1946, but dealers in 1947 paid more for their merchandise and earned a smaller net profit on it, according to a cost-of-doing-business survey conducted by the National Electrical Retailers Association.

Richard E. Snyder, consulting economist to NERA, released the results of the survey last week and pointed to these other significant findings:

Refrigerators accounted for the highest percentage of total sales in both years (24% in 1947 and 19% in 1946). Washing machines, however, ousted radios from second place in 1947 and were credited with 18% of total sales. (See Table 1.)

1947 saw a sharp increase in the percentage of total sales involving trade-ins with the sharpest rise affecting washing machines. (See Table 2.)

Out of a slimmer gross margins, appliance dealers had to pay somewhat higher operating costs. These costs rose chiefly from greater outlays for servicemen and for taxes, insurance, and like expenses. (See Table 3.)

Important variations in costs and profits existed between different size dealerships and between dealers in different parts of the country. (See Tables 3 and 5.)

Snyder termed the increase in dollar sales of dealers participating in the survey "well above average," pointing out that all U. S. trade for

the same period rose only 17% while sales in all types of retail stores handling durable goods increased 38%.

Only 5% of dealers reporting showed smaller sales totals in 1947 than in 1946, he said.

Dealers with annual net sales of between \$150,000 and \$250,000 made the smallest increase (30%) while dealers with net sales of over \$250,000 made the largest (55%).

Dividing it regionally, dealers in the south central states (south of the Ohio river and Missouri and Kansas) reported dollar sales increases of only 39% while those on the eastern seaboard and New England scored sales rises of 51%.

Snyder found that, nationally, appliance dealers paid \$67 out of every \$100 of net sales for their merchandise in 1947 as compared with \$66.10 in 1946. This left them with a gross margin of \$33 in 1947 as compared to \$33.90 in 1946. But, out of the \$33, they spent \$26.20 on operating expenses, while the previous year they had spent only \$25.40 out of \$33.90 on operating costs.

After deducting the operating expenses, Snyder noted that the average dealer had a net profit of \$6.80 on each \$100 of sales in 1947 as compared to \$8.50 in 1946.

"This drop should suggest to all dealers in the trade the urgent need for careful study of sales promotion methods and means of keeping operating costs under control," he declared.

To appraise the revenues and costs

Table 1—Appliances Sold In Relation to Total Sales

Appliance	Percent of Total Sales 1947	Percent of Total Sales 1946
Total	100	100
Refrigerators	24	19
Washing machines	18	16
Radios	17	17
Ranges	13	12
Vacuum cleaners	3	3
Other Sales:	25	32
a. Major appliances	14	...
b. All small appliances	11	...

related to servicing, the 1947 survey asked dealers for information on these items. Nearly 45% of the participating dealers provided dollar figures, which, when consolidated into a separate summary, showed:

	% of Net Sales
Revenue from servicing	9.2
Cost of service parts and supplies	4.0
Cost of servicemen	4.3
Net from servicing before other costs	0.9

Only a very few dealers showed losses on servicing operations, Snyder asserted.

In presenting these figures, Snyder offered the following note of caution:

"The basic report schedule used in this survey called for the inclusion of 'revenue from service' in net sales and the cost of 'service parts and supplies' in total cost of goods sold. This was done to maintain comparability with the 1946 survey ratios.

"Therefore, the 'gross margin' of any dealer whose servicing operation was an important factor in his business might be overstated on the face of the statement as now set up.

"Thus it is essential that those who use this survey as a basis for interpreting 'gross margin' in relation to

Table 2—Percent of Total Sales Of Each Item Involving a Trade-In

Appliance	Trade-In % of Total Sales 1947	Trade-In % of Total Sales 1946
Vacuum cleaners	26	10
Washing machines	19	4
Refrigerators	11	3
Ranges	9	2

considerations involving trade discounts exercise care and restraint in applying the broad survey figures to individual situations."

Examining his statistics for 1947 by regions (see Table 3), Snyder disclosed that:

Gross margin was highest in the north central states and lowest in the west.

Total operating costs were highest in the north central states and lowest on the eastern seaboard.

Net profit was highest on the eastern seaboard and lowest in the south central states.

Comparing gross margins, total operating costs, and net operating profits for 1946 and 1947 by regions (see Table 4), he determined these facts:

Gross margins in 1947 were below 1946 in all regions except the north central states.

Total operating costs were higher in 1947 than in 1946 in the north and south central states, lower in the east and west.

Net operating profits were below 1946 in all regions except the eastern seaboard.

Analyzing the survey returns by size of dealer (see Table 5), Snyder noted these basic characteristics of the operating profit and cost experi-

ence of different sized dealers in 1947:

Gross margins and net profits averaged higher, in percentage to net sales for dealers in the smallest size group than for the large ones.

The operating cost picture was mixed, but total costs of the two largest size dealer groups, taken together, were higher than those of the combined two smaller size groups.

Administrative costs averaged higher for the two smaller dealer groups than for the larger dealers.

Total sales costs were much higher for larger dealers than for small ones.

Smallest dealers had higher costs for servicemen and publicity expense than the larger dealers, while the largest dealers showed highest costs in the "all other expense" category.

Comparing 1947 figures with 1946, he found:

Gross margins were up for the smallest and largest dealer size groups, and down in the two middle-size groups.

Total operating costs were up in the two smaller dealer groups and down for the larger dealers.

Net profit percentages to sales dropped sizeably in the two smaller dealer groups while rising for the larger dealers. This was true despite the fact that the small dealers actually had higher net profit percentages than the larger ones.

Administrative expenses and total sales costs presented a mixed pattern among all groups.

The one expense category in which there was higher expense in 1947 than in 1946 for all four dealer groups was the cost of servicemen. The rise was especially sharp in the case of the smaller dealers.

ESKOTRAY The Modern Plastic Ice Cube Tray

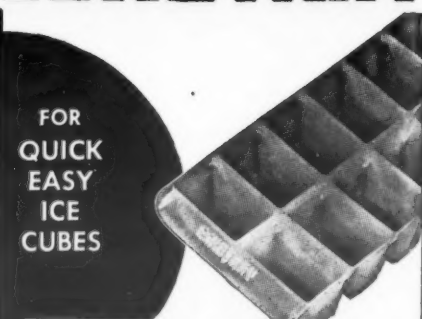


FOR QUICK EASY ICE CUBES

DEALERS!

THE ICE CUBE CONVENIENCE EVERY HOUSEHOLD IS DEMANDING. Profit today and every day by pushing this quick release ice cube tray. GUARANTEED . . . NATIONALLY ADVERTISED . . . Attractively sealed in cellophane . . . ESKOTRAY profits are quick and good.

ESKOTRAY

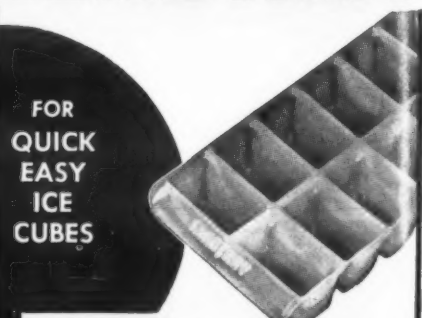


FOR QUICK EASY ICE CUBES

SERVICEMEN!

ADD \$\$\$ PROFIT TO EVERY SERVICE CALL! No sharp instruments, no tugging, no pulling necessary . . . non-sticking ESKOTRAYS add life to refrigerator freezing compartments.

ESKOTRAY



FOR QUICK EASY ICE CUBES

MANUFACTURERS!

Your customers are entitled to the convenience of ESKOTRAY and you are entitled to the economy of ESKOTRAY.

AVAILABLE THROUGH YOUR JOBBER

ASSOCIATED PLASTIC COMPANIES, INC.
The Merchandise Mart Chicago 54, Illinois
In Canada—Ontario Steel Products Co., Ltd.
Chatham, Ontario

The Motor in this Hermetic Unit Won't Burn Out...

It's Protected with a

KLIXON Dome-Mounted Protector

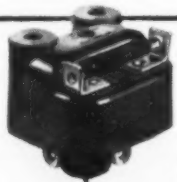
Motors in hermetically-sealed compressor units won't burn out if they are protected with Klixon Protectors. This means that you get minimum factory returns of the units and have less servicing to do.

Mounted on the dome where they follow every motor temperature change, they shut "off" the power should the motor become dangerously overheated regardless of the cause. Then, when the motor cools sufficiently, they automatically snap "on"

the power again, enabling the unit to provide refrigeration. And remember the protection is permanent . . . keeps the motor from burning out for the life of the refrigerator.

Whether you are a manufacturer of hermetic units or a user who incorporates the mechanism in your own brand of refrigerators, show-cases, beverage coolers, etc., it will pay you to specify "Klixon dome-mounted Protectors on hermetic units."

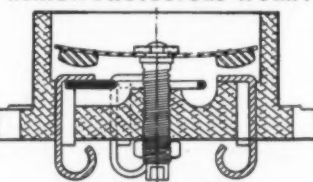
KLIXON MOTOR STARTING RELAY completes the combination required to start and protect the hermetic motor. Its positive action and long life eliminate starting troubles and make it a fitting companion for the Klixon Protector used and recommended by leading refrigeration manufacturers.



KLIXON

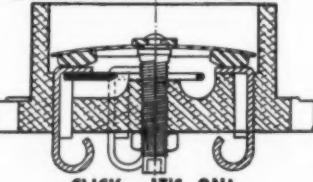
SPENCER THERMOSTAT COMPANY
2407 FOREST ST., ATTLEBORO, MASS.

HERE'S HOW KLIXON PROTECTORS WORK!



CLICK...IT'S OFF!

Should a motor become overheated and dangerously hot, the Klixon Protector snaps the power "off" preventing the motor from burning out.



CLICK...IT'S ON!

When the motor cools to safety, the Klixon Protector snaps the power "on" automatically.

Specialists IN

AIR CONDITIONING FOR SMALL BUSINESS

TYPHOON

SELF-CONTAINED UNITS

Sizes up to 7-Ton

Nationally advertised to your prospects

TYPHOON AIR CONDITIONING CO., INC.
Divisions of Ice Air Conditioning Co., Inc.
714 UNION STREET • BROOKLYN, N. Y.

**Table 3—National Operating Cost
And Profit Ratios, 1947-1946**

Item	National Averages		Region (1947 Only)			
	1947	1946	I	II	III	IV
Net Sales	100.0	100.0	100.0	100.0	100.0	100.0
Cost of Goods Sold	67.0	66.1	67.9	65.6	67.8	68.1
Gross Margin	33.0	33.9	32.1	34.4	32.2	31.9
Total Operating Costs						
(a thru h)	26.2	25.4	22.3	28.3	26.9	25.3
a. Administrative	7.1	7.1	6.5	7.6	10.1	5.9
b. Cost of Salesmen	4.8	4.8	3.8	4.2	7.1	5.6
c. Other Sales Costs	2.2	2.8	2.4	2.6	1.2	1.9
d. Cost of Servicemen	4.1	3.3	3.0	5.4	1.7	3.8
e. Occupancy Expense	3.0	3.7	2.5	3.0	1.6	3.5
f. Publicity Expense	2.1	1.9	2.2	2.3	1.8	1.7
g. Bad Debt Losses	0.2	1.8	0.2	0.1	0.6	0.3
h. All Other Expenses	2.7		1.7	3.1	2.8	2.6
Net Operating Profit	6.8	8.5	9.8	6.1	5.3	6.6

Administrative costs cover owners', managers', and office force salaries; office supplies, collection expenses, traveling, etc.

Cost of Salesmen covers salaries, commissions, draws, overrides, bonuses, prizes, and expenses.

Other sales costs cover salesbooks, tags, wrappings, special demonstrators' pay, delivery expenses, including wages, and delivery equipment maintenance and depreciation charges.

Cost of servicemen covers wages and expenses on job.

Occupancy expense covers rent, heat, light, janitor expense, property taxes and insurance, mortgage interest, etc.

Publicity expense includes salaries, wages, and all other expenses for newspaper, direct mail, billboards, radio, and window trimming.

All other expense includes bad debt losses (or reserves set up to cover losses), all taxes except those on owned real estate, insurance on stock and fixtures, and any other expenses not previously designated.

Region I: New England, Middle and South Atlantic States (Including Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, District of Columbia, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida).

Region II: North Central States (Including Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas).

Region III: South Central States (Including Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas).

Region IV: Mountain and Pacific States (Including Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, California, Oregon).

Table 4—The Geographical Groups—1947 vs. 1946

Item	Year	Natl. Avg.	Region			
			I	II	III	IV
Gross Margin	1947	33.0	32.1	34.4	32.2	31.9
Gross Margin	1946	33.9	32.5	33.2	34.9	35.7
Total Operating Costs	1947	26.2	22.3	28.4	26.9	25.3
Total Operating Costs	1946	25.4	23.9	22.4	26.3	26.3
Net Operating Profit	1947	6.8	9.8	6.1	5.3	6.6
Net Operating Profit	1946	8.5	8.4	10.8	8.6	9.4

Table 5—The Dealer Size Groups—1947 and 1946

Item	Year	Natl. Avg.	Dealers With Sales Of:			
			Less Than \$75M	\$75M to \$150M	\$150M to \$250M	More Than \$250M
Net Sales	1947	100.0	100.0	100.0	100.0	100.0
Net Sales	1946	100.0	100.0	100.0	100.0	100.0
Cost of Goods Sold	1947	67.0	65.4	67.4	66.6	67.2
Cost of Goods Sold	1946	66.1	66.2	66.0	64.9	67.9
Gross Margin	1947	33.0	34.6	32.6	33.4	32.8
Gross Margin	1946	33.9	33.8	34.0	35.1	32.1
Total Operating Costs	1947	26.2	26.5	24.6	27.7	25.9
Total Operating Costs	1946	25.4	23.6	24.5	29.9	26.5
Administrative	1947	7.1	8.1	7.0	7.3	6.8
Administrative	1946	7.1	8.3	6.5	6.8	7.4
Total Sales Costs*	1947	7.0	3.6	5.4	7.8	8.0
Total Sales Costs*	1946	7.6	6.5	6.9	7.8	7.7
Cost of Servicemen	1947	4.1	5.5	4.6	5.2	2.9
Cost of Servicemen	1946	3.3	1.8	3.7	5.0	2.2
Occupancy Expense	1947	3.0	3.2	3.2	2.6	3.0
Occupancy Expense	1946	3.7	4.1	2.7	3.6	3.9
Publicity Expense	1947	2.1	3.4	2.0	2.0	1.9
Publicity Expense	1946	1.9	2.3	1.5	1.7	2.1
All Other Expense	1947	2.9	2.7	2.4	2.8	3.3
All Other Expense	1946	1.8	0.6	3.2	5.0	3.2
Net Operating Profit	1947	6.8	8.1	8.0	5.7	6.9
Net Operating Profit	1946	8.5	10.2	9.5	5.2	5.6

*Includes cost of salesmen and "other" sales costs.

**THE MOST REVOLUTIONARY THING
IN BARS SINCE PROHIBITION!**



The 3-N-1

What it Does...

- Soda, cola, and ginger ale from one faucet.
- No discoloration of drinks.
- Syrup gravity fed.
- Six seconds for 8 ounces.
- Compact-Labor Saving-Profit Making.

The exclusive locked-in "BOOSTER" gives up to 25% more carbonation—plus perfect mixture from tank or carbonator...

Dealer and Distributor Inquiries Solicited

AMERICAN DISPENSER CORPORATION
624-628 South Paulina Street
Chicago 12, Illinois

'Stay Fresh As A Daisy' Summer Range Ads Cry

NASHVILLE, Tenn.—"Stay Fresh as a Daisy All Summer Long" is the theme of a three months' promotion on electric ranges and water heaters launched recently by the Nashville Electric Service.

William D. Hall, sales promotion manager for the utility, announced the promotion in a letter to appliance dealers and distributors and urged them to tie in their own advertising to this slogan.

The utility, he said, will plug the idea in newspaper and radio advertising as well as through a full showing of bus cards and five prominently located billboards.

"Our theme, which aims at a cool kitchen all summer long, is probably one of the strongest selling arguments for the use of electric ranges and water heaters at this particular season," he declared.

A typical newspaper advertisement developed the idea along these lines:

"Your kitchen stays cooler and you stay fresher when you use a modern automatic electric range. There's no waste heat to cook the cook instead of the food! Insulated ovens keep the heat inside and surface units transmit the heat directly to your cooking utensils. You'll cook cool and you'll cook better with an electric range."

Electric water heater copy was in a similar vein. Following a short mention of other major electrical appliances that keep one "fresh as a daisy," the advertisement directed the reader to his appliance dealer "for cool comfort all summer long."

Distributors Win New Type Award



John W. Craig (l.), Crosley general manager and vice president of Avco Mfg. Corp., presented awards for outstanding public relations jobs to three Crosley distributors during the Crosley national convention in Cincinnati last month. Winning distributors were (from l. to r.) Hyman Reader, president of Reader's Wholesale Distributors, Houston, Texas; Frank R. Kramer, general manager of the Ridge Co., South Bend, Ind.; and Oscar Mannen, owner and general manager of Lehigh Distributors, Hazleton, Pa.

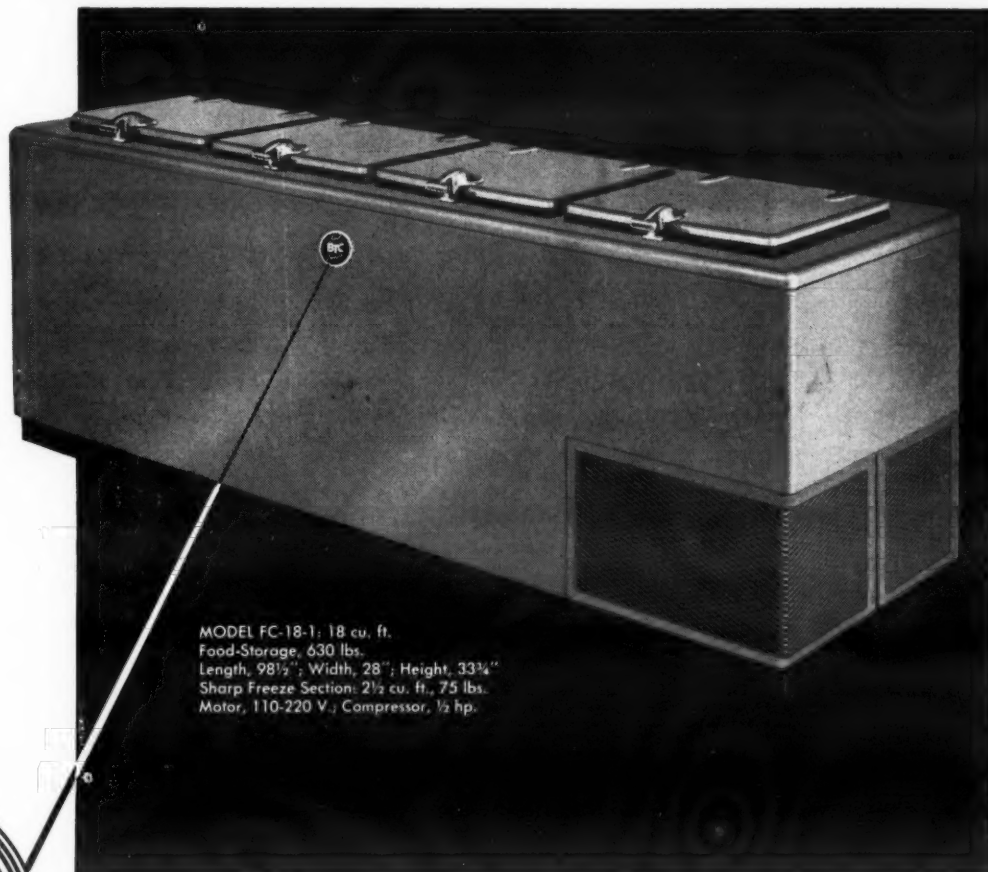
Coldin Cabinet Switches to Porcelain Exteriors

NEW YORK CITY—Coldin Cabinet Co., Inc., will henceforth use only porcelain interiors and exteriors in all its wall, double-duty, and full-vision refrigerated cases, according to an announcement by Leon P. Krause, vice president.

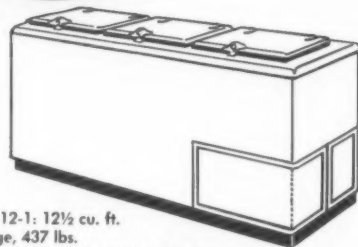
In the past the manufacturer has used Duco enamel exteriors with porcelain interiors. Along with the announcement of the change, the company revealed the acquisition of large quantities of enameling steel for porcelaining.

**BTC
FOOD
FREEZERS**

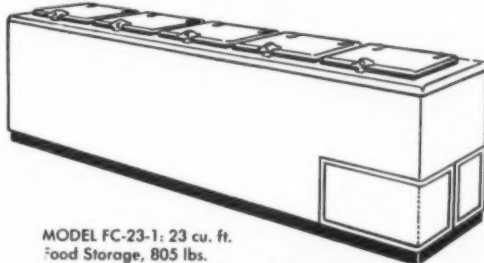
**Built
for
Customer
Satisfaction**



MODEL FC-18-1: 18 cu. ft.
Food Storage, 630 lbs.
Length, 98 1/2"; Width, 28"; Height, 33 1/4"
Sharp Freeze Section: 2 1/2 cu. ft., 75 lbs.
Motor, 110-220 V.; Compressor, 1/2 hp.



MODEL FC-12-1: 12 1/2 cu. ft.
Food Storage, 437 lbs.
Length, 76"; Width, 28"; Height, 33 1/4"
Sharp Freeze Section: 2 1/2 cu. ft., 75 lbs.
Motor, 110-220 V.; Compressor, 1/2 hp.



MODEL FC-23-1: 23 cu. ft.
Food Storage, 805 lbs.
Length, 121"; Width, 28"; Height, 33 1/4"
Sharp Freeze Section: 2 1/2 cu. ft., 75 lbs.
Motor, 110-220 V.; Compressor, 1/2 hp.

The way to win sales is to sell a food freezer soundly engineered for exacting low-temperature performance. BTC Food Freezers have all the essentials for quality food freezing — rapid freezing, zero storage, economical operation, and lasting service. Inside and out, the BTC Food Freezer is built for customer satisfaction with—

Separate Sharp Freeze Section — prime surface plates on all four sides and bottom for rapid contact freezing.

Independent Storage Compartment — completely lined with frigid wall (Cross-Flow) evaporator plates; multiple, individual lids easier to handle and more efficient than a large, single lid.

Extra Compressor Capacity — cannot be overloaded; runs less than 6 hours out of 24; maintains frozen foods at zero storage and permits rapid freezing of new foods.

Solidly-Built Cabinet — strong 16 gauge steel, bonderized to prevent rusting and finished in oven-baked enamel; vapor-sealed insulation, sidewalls of three layers of fiberglass and bottom of 5" vegetable cork board.

You won't regret selling BTC Food Freezers to your customers. Write for information on the profitable BTC franchise . . . A complete line of food freezers and display cabinets plus helpful advertising and point-of-purchase material backed by a manufacturer established more than 100 years.

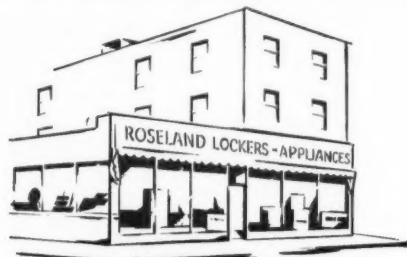
THE BREWER-TITCHENER CORPORATION
BINGHAMTON, N. Y.

They'll Do It Every Time By Jimmy Hatlo



Do You Have 'One Foot In the Door'?

Roseland Lockers, Chicago
hit the jackpot selling . . .



PHILCO FREEZERS



"Every Philco Freezer we sell brings profits 3 ways —(1) from the freezers themselves; (2) from increased sales of packages of frozen foods; (3) from new business in processing."

Says JOSEPH ECKEREN, Mgr.

← Here, Roseland Manager Joseph Eckerlen is shown giving a Philco Freezer demonstration to two interested customers. Pointing to the patented Philco 3-compartment design he explains how this makes large quantities of foods easier to arrange and keep orderly—a feature that wins the feminine vote every time.

PHILCO AH-51 5 Cubic Feet

- Patented 3-compartment design.
- Extremely cold center compartment—as low as 15° below zero.
- Counterbalanced lid.
- Built-in lid lock.
- Temperature Control and outside Thermometer.
- Guardian Bell, battery operated.

PHILCO

Famous for Quality the World Over

YES, experience proves it! The profits *really* begin to pile up for wide awake locker operators *after* the sale of a Philco Freezer. That's when a customer gets the frozen food habit—uses more, buys more—often rents *additional* locker space. And a Philco has the extra sales appeal, the sell-on-sight features and conveniences that make customers say "yes". Counter-height design, generous capacity, smart appearance and dependable, care-free, automatic operation—all combine to make it the ideal home freezer. It's the quality freezer you can sell with confidence. Write for information about this profit opportunity to — Philco Corporation, Philadelphia 34, Pennsylvania.

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U. S. Patent
Office:
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POMMERENING, LORRAINE MAJOR,
AND MARKESE ROSE.

E. L. HENDERSON, Business Manager
ROBERT M. PRICE, Adv. Representative
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VOLUME 54, No. 12, SERIAL No. 1,009, JULY 19, 1948

Unequal Pay for Unequal Work

EVERY year since the terrible annum of 1933, the Lincoln Electric Co. in Cleveland, Ohio, has been paying its employes bonuses. But unlike many bonus plans, Lincoln's bonuses are based on what workers actually produce, above and beyond a certain standard, not merely on the amount of time they put in.

James F. Lincoln, president of this concern, recently reviewed some of the results of his company's policy. In view of current emphasis on equal pay per hour, hours in the work week, etc., these somewhat astonishing accomplishments merit close attention.

"Because of our system of recognizing performance and of keying performance to low cost production," said Lincoln, "our organization has produced more, the people have earned more, and the customers have received a better product at a lower cost. The number of people on our payroll has increased, while our prices, since 1933, have been reduced 50%."

He then backed up this statement with some other facts:

Production in terms of shipments has been developed through organization teamwork to the rate of more than \$28,000 per man per year. This rate, according to Lincoln, is about four times as great as that in most large electrical manufacturing companies.

At the end of last year, the firm's 1,155 employes (including everyone but Lincoln and the chairman of the board) were given bonuses totaling \$3,800,000. This sum was their share of the net earnings of Lincoln's operation for the year.

Individual checks ranged from \$25 for short-time employes to \$35,000 for top sales, managerial, and engineering talent. In general, the checks were for more than 100% of yearly take-home pay.

To stress what an employe will do when paid for producing *extra*, Lincoln cited the highest total yearly earnings of the best workers in certain departments. In the machine shop, the top income was \$9,457; in the welding department, \$8,982; in a department of hand assembly work, \$9,705; in the punch press department, \$9,180.

These amounts were not paid to individual workers because the management is paternal, Lincoln emphasized. They were paid because of outstanding production records recorded by these fastest, hardest workers.

"The bonus is not a Christmas present," he said. "It is not a gesture made by the company intended to buy worker's goodwill. Every cent of it is earned."

Lincoln would like to see other companies adopt similar plans. If they would, he believes rising prices would be halted, the threat of run-away inflation eliminated, and the possibility of a need for government price controls done away with for all time.

"When men are paid for what they produce," he said, "the supply of goods is kept in balance with the demand for goods. The pressure that drives prices in inflationary heights is eliminated. The goods are there to be had, and the people have the money to pay for them."

Lincoln goes even further than merely advocating the plan. He claims its widespread adoption is imperative.

"Some system, such as ours, of appraising and rewarding men's performance and of keying that performance to low cost production and then passing the resulting economies on to the consumer in lower prices must be adopted by industry in general if we are to stabilize our economy and secure industrial peace."

The record would seem to speak for itself.

Although the Lincoln system of incentive payments can be applied only to a business where output per worker can be measured accurately, there are so many such businesses in the country that it would appear the system could be applied on a large and influential scale.

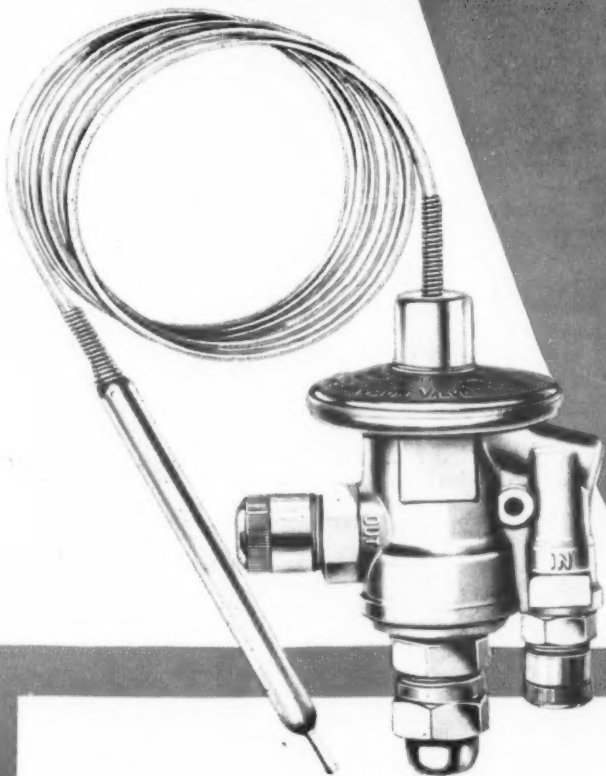
Modern building of Hinshaw Supply Company, 169 Eleventh Street, San Francisco, one of the Pacific Coast's most progressive wholesalers.



"Bob" Hinshaw in his new second floor office.



Hinshaw Sales floor indicates their belief in the value of display. Long service counters provide quick access to stock shelves.



Simplify your service . . . Improve System efficiency . . . with this A-P Model 205-C Thermostatic Expansion Valve

— You'll keep a surprisingly wide variety of your systems in peak efficiency with the A-P Model 205-C. It handles everything from 1/2 ton at -40° to 2 1/2 tons Freon at 40° or higher. Because of its cross charged power element, it can be used over this extreme capacity and suction pressure temperature range *without adjustment*. And regardless of body position or ambient temperature, the bulb never loses control, and maintains a constant superheat regardless of load variation. It's available at your wholesaler in three orifice sizes, .062", .110", and .162".



Your Refrigeration Equipment Wholesaler keeps you up-to-date on new products . . .

Alert to new developments that will help you to more profitable servicing and improved equipment operation, your refrigeration equipment wholesaler usually has a "line" on the best of new products and tools. If he does not already stock them, he knows how they will serve and where and when they will be available. Progressive, yet super-critical of anything new, he will recommend those products only after he is positive they live up to all claims and expectations.

Watch your wholesaler's display shelves for new ideas; ask him regularly for the latest news on new developments in refrigeration equipment. Then depend upon him wholeheartedly for recommendation of the products that will improve your service and help build your business and reputation.

AUTOMATIC PRODUCTS COMPANY

2450 NORTH 32nd STREET • MILWAUKEE 10, WISCONSIN
Export Department, 13 East 40th Street, New York 16, N. Y.



DEPENDABLE Refrigeration Values

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE . . .
RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS

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549 W. WASHINGTON BLVD.
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Product Coolers, Evap. Condensers
Air Conditioning, Liquid Coolers
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Get These Profits

Refrigeration and insulation distributors make an extra profit selling the NEW

MASTER FOOD CONSERVATOR

Master Manufacturing Corp.
121 Main St. Sioux City 4, Iowa
1,000,000 MASTER FOOD CONSERVATORS IN USE

Available from 1/2 to 10 H.P.

CLEANABLE DOUBLE-TUBE COUNTER-FLOW WATER-COOLED CONDENSERS

Write for literature

Halstead & Mitchell
BESSEMER BLDG.
PITTSBURGH 22, PA.

What's New

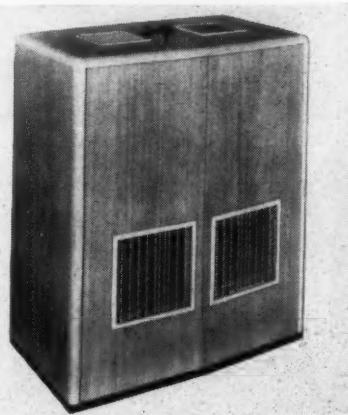
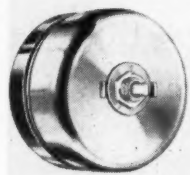
Timer Cuts In at Periods From 1 Min. to 12 Hours

HARTFORD, Conn.—M. H. Rhodes, Inc. here, is now in production of the new "Mark-Time" series 5400 dual-purpose bell-electric switch combination timer unit.

It is a self-contained, compact electric switch and timing unit that combines the Mark-Time series 5200 silver butt contact switch and the Mark-Time standard timing unit. The new unit is 2 1/16 in. in diameter by 1 1/2 in. deep behind mounting panel, and has the standard simple center stud mounting arrangement that assures perfect alignment of installation in one operation.

The timer breaks the electrical circuit and simultaneously rings a bell to notify the attendant after a predetermined time interval, so that it can be used in industry and home.

Standard timing provided is 60 minutes at one minute intervals, but any time duration from a minimum of 60 seconds to a maximum of 12 hours can be provided on specification. A special "hold" feature can be incorporated into the unit, if desired, that allows continuous current use until the unit is manually shut off.



Console Model Cooler Consumes Minimum Water

MINNEAPOLIS—A new console type room air conditioner that measures only 36 1/2 in. high, 30 1/2 in. wide, and 18 1/2 in. deep has been introduced by the United States Air Conditioning Corp. here.

The water cooled unit cools, dehumidifies, filters, and circulates the air. It is said to require no window location nor any duct to bring in outside air. Electrical wiring to the unit and water connections are all that are necessary, according to the company.

The usAIRco room cooler is avail-

able in two models of 3/4 and 1-ton cooling capacities.

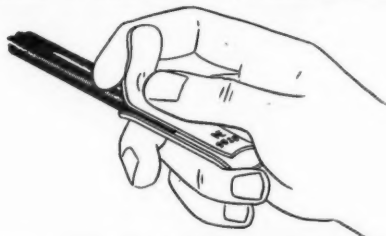
Two adjustable discharge grilles are located at the top of the unit. The cabinet is fully insulated with glass fibre against motor heat and noise. A hermetically sealed compressor powers the unit. "Freon" is the refrigerant.

Water consumption is said to be held to a minimum by a new condensing coil design. A simple rotary switch controls the cooler and the fans when they are used for circulation only. A rheostat control regulates blower speed.

Device Can Quickly Strip Non-Metallic Cable Sheath

PITTSBURGH—A ripper for stripping all types of non-metallic cable sheaths—braided or plastic—is now being marketed through electrical wholesalers by National Electric Products Corp., here.

The No. 9020 EZ Cable Ripper is made of formed steel, which is then



case hardened and cadmium plated. Although designed particularly for use with the new, smaller diameter cables, the new National Electric tool will effectively strip the sheath from larger sized cables, the company says.

This cable ripper is composed of two hinged parts. In operation the end of the non-metallic sheathed cable to be stripped is laid in the rounded bottom channel. The hinged top is then closed over and firmly pushed down on the cable. This action forces a rudder-shaped ripper through the sheath.

The No. 9020 EZ Cable Ripper is then pulled steadily forward. The sheath is thus neatly sliced. Only an additional second or two is needed to open the sheath at the cutting and strip it back to expose the insulated conductors.

According to the manufacturer, this cable ripper will not score the

copper conductors.

A standard package consists of 100 cable rippers. The new product, which is 2 1/2 in. by 1 1/4 in., will be sold by wholesalers for about 25 cents.



7-Model Water Cooler Line Features Foot Pedal

MANSFIELD, Ohio—Seven new water coolers featuring a hermetically sealed refrigeration system have been announced by the Westinghouse Appliance Division.

All models are covered by the Westinghouse five-year protection plan.

Features of the line include a new pedal control, automatic stream-height control, and built-in carafe filler attachments.

'Nestack' Refrigerator Boxes Come In 3 Sizes

LONG ISLAND CITY, N. Y.—Plastic refrigerator food boxes with transparent lids are now being made in three sizes by the Hutzler Mfg. Co. here.

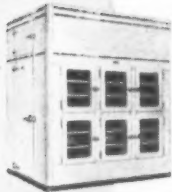
The boxes, called "Nestack," are designed to nest and stack with each other.

They measure 9 in. by 14 in. by 5 in., 4 in. by 8 in. by 3 1/4 in., and 4 in. by 4 in. by 3 1/4 in.

The large size box will retail at approximately \$4.50. The others will be sold in sets consisting of one medium size and two small size boxes. These will retail at approximately \$1.29.

NOW HERE IT IS!

The Case with an Idea!



Yessir! Here is a self-service case with an idea built in... with merchandising an integral part of its construction. Designed to help you make more sales.

Be sure you know about the merchandising idea in the new Super-Serv. It can make you extra profits... increase your volume. Fill out the coupon and MAIL TODAY.

THE SUPER-COLD CORPORATION

1020 E. 59th St. Los Angeles 54, Calif.

Portland • Chicago • New York • Newark
New Haven • Dallas • Houston
Oklahoma City

and
DISTRIBUTORS IN PRINCIPAL CITIES

AN INVITATION

Now, more than ever, Super-Cold is the line for greater sales. For over a quarter century, it has been the complete food store line fully manufactured and marketed under one great name. During the past few years, it has not been possible to expand our family of distributors, but our recently completed Post-War Modernization program, which greatly increases our production, now makes it possible for us to expand our distributor organization. If you would like information about a Super-Cold **PREFERRED** franchise, use the coupon or write on your letterhead.

Gentlemen:
Please furnish me with details on your new "Case-with-an-Idea" and complete information on a Super-Cold franchise.

Firm _____
Address _____
City and State _____
Name _____

SUPER-COLD

GUARDIAN OF
Flavor
Appearance
Purity

COMPLETE FOOD STORE REFRIGERATION UNDER ONE GREAT NAME

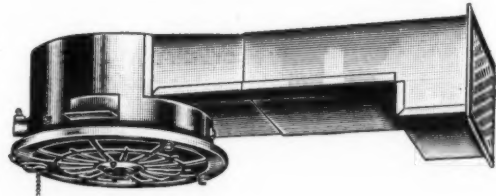
Emerson Electric Kitchen Fan Installs In Ceiling

ST. LOUIS—A new, 10-in. kitchen ventilating fan for built-in ceiling mounting is announced by the Emerson Electric Mfg. Co. here.

The unit consists of three sections: ceiling grille and fan unit, ceiling housing, and outside grille.

Ceiling grille and fan unit in one section may be installed in the ceiling housing after walls are plastered. Grille is finished in baked white enamel, may be repainted to match ceiling.

The ceiling housing is equipped with a shutter that opens when the fan is turned on, closes when fan stops. Outside grille is rectangular, facilitating installation in brick or



frame construction.

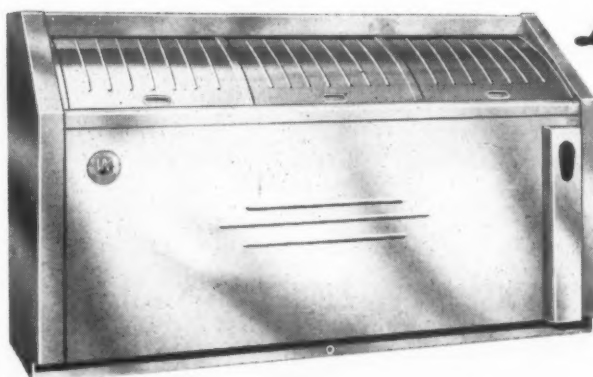
Angle baffles in the outside grille minimize effects of headwinds and protect against entrance of elements. Sleeves are adjustable from 18 1/4 in. to 22 1/4 in. and if sleeve extension is necessary, standard 3 1/4 in. x 10 in. rectangular duct may be used.

Fan exhausts 470 c.f.m. (Nema test method for ventilating fans at zero static pressure).

The Streamlined Stainless Steel

LaCrosse

DRY
STORAGE
BOTTLE
COOLER



Featuring The Rollback WELL INSULATED LIDS

The designed companion piece of the new La Crosse Ice Cube Maker. Adjustable wire partitions and shelf offers greater capacity—Sturdily constructed of heavy rust-resisting metal—Recessed base—Sizes 4-6-8 ft.



LA CROSSE COOLER CO.

2809 Losey Blvd. So., La Crosse, Wisconsin

Export Representatives: Melvin Pine & Co.

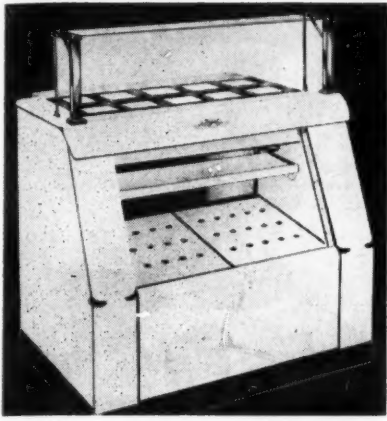
Cable address: Eximport

80 Broad St., New York 4, New York

NOTE: Inquiries from out of U.S.A. should be addressed to: International Division, or use Cable Address, "Supercold."

What's New (Con't)

'Luncheonette' Case Serves Many Uses



PHILADELPHIA—Fogel Refrigerator Co. here is now in production on an improved version of its refrigerated "Luncheonette" case available in 4-ft. (BM-4) and 6-ft. (BM-6) models, William Fogel, president, announced.

The case is described as a sandwich unit, a display case, a "Bain Marie" unit, and a storage refrigerator. It is 23 in. wide at the top, 32½ in. wide at the bottom, and 43 in. high (55 in. with glass guard).

Porcelain exterior, a cutting board for preparation of salads and sandwiches, porcelain trays (10 in the BM-4; 16 in the BM-6) with individual covers set in a stainless steel, "Bain Marie" top, fluorescent lights, a removable container for waste trimmings, and an appliance outlet in the back are listed as some of the features.

The food containers are 6 in. by 6 in. by 3 in. The size of the display glass in the 4-ft. model is 22 in. by 36 in. and 22 in. by 60 in. in the 6-ft. model. BM-4 has a display shelf area of 9 sq. ft. and a storage capacity of 8 cu. ft., while BM-6's display shelf area measures 15 sq. ft. and its storage capacity is 12 cu. ft.

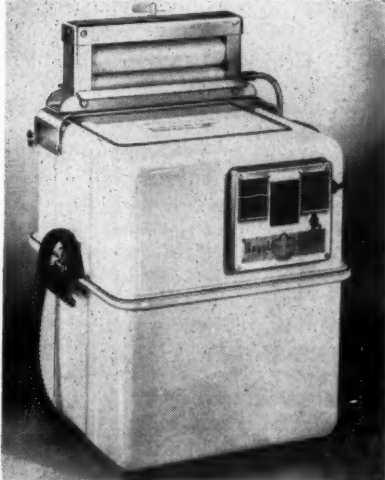
Portable Unit Washes 4 Lbs. In 15 Min.

LOS ANGELES—A new portable clothes washer featuring a patented "baffle drum" construction is now being manufactured by Poulsen & Nardon, Inc. here.

The Royal Chef, as the washer is called, can do 4 lbs. of wash in 12 to 15 minutes by its double-tumble action, the manufacturer claims.

It is contained in a rectangular shaped aluminum housing that measures only 18 in. by 16½ in. by 20 in. The unit weighs 31½ lbs. and is operated by a ¼-hp. capacitor type motor using 115 volts, 60 cycle a.c. It has a 7-gal. water capacity.

Attachments include a 7½-ft. ex-



tension cord and a 2-ft. feed-drain hose. The latter enters the machine through the bottom.

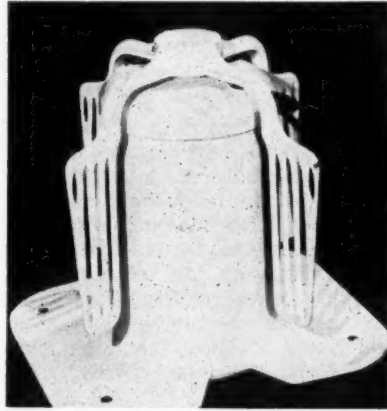
The washer's revolving drum, made of heavy gauge drawn aluminum is perforated and is divided into two equal compartments by a pair of baffles and a divider. According to the company, "these baffles are staggered, not straight."

"As the drum revolves, they gently lift the clothes into constantly chang-

ing new positions. Thus, instead of merely sliding around on the inside of the drum or across the divider, clothes continually are plunged through the foam of suds and water."

Poulsen & Nardon, Inc., is located at 2665 Leonis Blvd. here.

Device Is Designed to Convert Tub to Washer



LONG ISLAND CITY, N. Y.—Metropole Machine Corp. here is now in full production on its "Metro Washer," a device intended to make a full-size washing machine out of a washtub, and thereby solve the space problem in apartments.

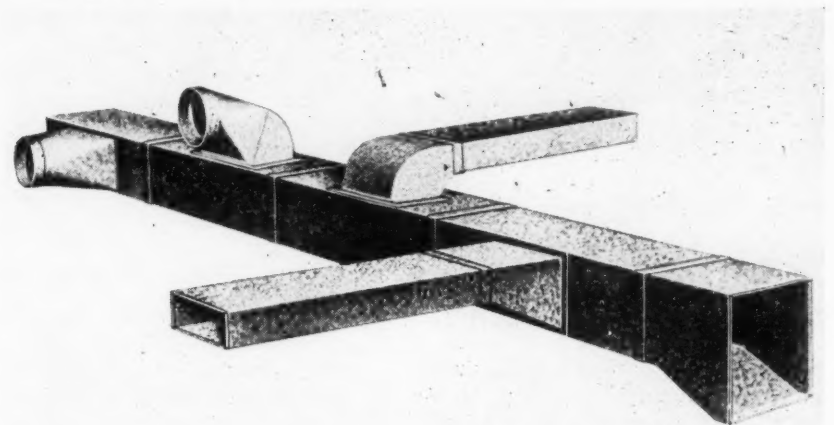
The washer is designed to fit into the tub compartment of the standard kitchen sink combination, according to M. R. Scheiber, sales manager. This, he said, means that no plumbing connections are necessary.

It was pointed out that the unit does not cause splashing whether in the soaking, washing, or rinsing phase. In many tubs, Scheiber added, the washer could be left in position permanently and kept out of sight by sliding the tub cover into place.

The washer is claimed to wash four to eight pounds of clothes (depending on the size of the tub) in 15 to 20 minutes. Reportedly made of heavy cast aluminum, it weighs approximately 25 pounds.

The washer was being sold by Lewis & Conger and John Wana-maker at the retail price of \$59.50.

Easy To Size and Simple To Install

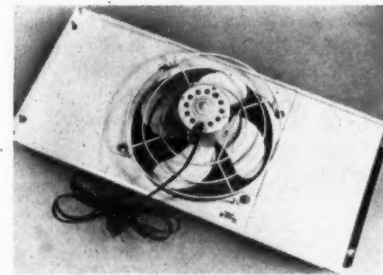


New pre-fabricated ductwork and fittings made by Clayton & Lambert features duct the same size its full length, thus it doesn't require reducers or increasers. End openings of the take-off fittings have twice the area of the outlets.

Sliding Side Panels For Window-Type Fan

TAKOMA PARK, Md.—A new low-priced exhaust fan for window mounting has been announced by Thomson & Bishop here.

Sliding side panels may be adjusted to permit mounting in windows from



Side panels for this window fan are adjustable.

22 in. to 33 in. in width. Extra long panels to fit 36-in. windows are available at \$1.40 per set extra.

Ten-in. blades are turned at 1,500 r.p.m. by a 110 v., 60 cycle a.c. shaded-pole induction motor to expel kitchen air at the rate of 600 c.f.m. The unit has a baked on enamel finish. It retails for \$13.95.

Savings Claimed For Pre-Fabricated Ducts

LOUISVILLE, Ky.—Clayton & Lambert Mfg. Co. is now producing a new Lamneck Simplenic System of pre-fabricated duct and fittings for forced air heating systems, it was announced by Edward H. Paul, sales manager.

Little or no engineering knowledge is needed to install the system, according to Paul, because of ease of sizing, assembly, and erection. He said the system will "greatly simplify stocking."

The duct extending from the plenum is the same size its full length, requiring no increasers or reducers, it was pointed out. To determine the size of the duct, Paul uses this formula:

Multiply the required number of openings by two and add the number two. For example, if there are nine openings of 6 in., 7 in., and 8 in. round pipe branches, $9 \times 2 = 18 + 2 = 20$ in. for width. The standard Simplenic duct is 8 in. deep; therefore, the size would be 20 in. x 8 in.

Use of the Simplenic System, developed by the National Warm Air Heating & Air Conditioning Association, can result in a 25% savings.

Lowest Costs • Greatest Profits—for BARS and TAVERNS



Four
Units
Require
Only
18 Inches
Of Bar
Space

Freshly Charged!
Perfectly Mixed!

DRINKS
(Or Chasers)

IN ONE SIMPLE MOTION

Simplicity itself. No cost except syrups and CO₂ Gas. Adjust faucet to amount of syrup desired. The Bayers does the rest. Raise handle for soda water. Lower handle for proper syrup and soda mix. Speeds bartending... cuts costs to new lows.

NO WASTED SPACE

Gleaming Stainless steel units only 9 inches high, 4½ inches in diameter, extend only 3½ inches above bar trough. HOLDS 52 OUNCES OF SYRUP.

- Any Size Drink Can Be Served
- Speeds Bar Efficiency
- Chasers At "Fraction-of-a-Cent"
- No Flat Drinks—No Waste
- No Bottles to Handle

DEALER AND
DISTRIBUTOR TERRITORIES
OPEN



TWINS FOR PERFECT OPERATION...

FAMOUS DENVER HOTELS, RESTAURANTS, DRUG STORES DEPEND UPON THE BAYERS FOR CONTINUOUS CARBONATION AT LOWEST COST IN HISTORY.

THE MOUNTAIN DISTRIBUTING CO.

"Water tests of the 1948 Bayers made with a Bastian Blessing Soda Water Tester before witnesses developed 5.45 volumes of carbonation."—Jack Kaufman, distributor, Webber Roll-A-Door Fountains.

THE BROWN PALACE HOTEL

"The most satisfactory and economical carbonator we have ever had."—A. V. McKone, chief engineer of the Brown Palace.

THE DANDY PHARMACY

"Bayers continuous carbonation keeps our busy fountain operating at top speed day in and day out with trouble-free, lowest cost carbonation."—J. F. Dandery, president of Colorado Pharmacal Association and Denver Retail Druggists.

THE IVANHOE DRUG STORE

"Bayers cuts carbonation costs to undreamed of lows, with finest sparkling water in unending, continuous supply."—S. Katz, owner of Ivanhoe Drug Store.

JOHNNY OTT'S NAVARRE

"The Bayers serves us faithfully on city water pressure, eliminating noisy, troublesome motors and pumps."—E. B. Miller, manager of Johnny Ott's Navarre Restaurant.

THE EDELWEISS RESTAURANT

"Our Bayers has produced thousands of gallons of carbonated water for more than a year with virtually no attention. It is an engineer's dream come true."—William Neujahr, chief engineer, Edelweiss Restaurant.

Continuous!

Unlimited!

High-Test!

CARBONATION

AT NO COST
EXCEPT YOUR CO₂ GAS

Operates exclusively on water pressure and CO₂ Gas with Regulator and Proportionate Valve automatically compensating for variable water pressures. Nothing to wear out... Just attach it to your water line and your CO₂ gas tank.

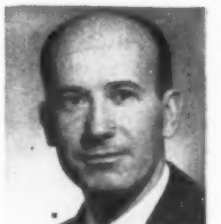
IT'S THE "MIGHTY-MITE"

Only 10¼" x 10¼" x 6". Weight 15 lbs. Stainless moving steel parts... Non-corrosive. Operates in bar or fountain or from shelf 12" x 7". Giving service around the world.

- Fully Automatic Regulation
- No Motors Or Moving Parts
- No Lubrication—Safety-Proof
- Simple Thumb-Screw Adjustment
- Only 3 Simple Connections

Joe Uhl

Former
Service Manager,
Rexall Drug Stores.
Carbonation Expert
for 24 Years, said—



"The first major improvement in mechanical carbonation in 10 to 15 years.

"Not only revolutionary, The Bayers is the most efficient carbonator I have ever seen. Results are unbelievable, such as carbonating water at high temperatures and still getting high CO₂ content. I have seen this carbonator produce more volume of gas than any other carbonator on the market under ideal water temperatures between 34 and 42 degrees."

MANUFACTURED BY
THE BAYERS CORPORATION

2314 Champa Street

Denver, Colorado

ALpine 5555

IT'S A NATURAL!
WRITE NOW
FOR DETAILS

Pair Gives Church Air Cooling

JACKSONVILLE, Texas — Announcement is made that the First Methodist Church in Jacksonville is to be air conditioned as a gift from Mr. and Mrs. Frank Keasler of this city. Cost will be about \$24,000, it was stated.

Sweden Fetes Employees As Freezer Output Resumes

SEATTLE — Ice cream from the first freezer to roll off the line after the Sweden Freezer Mfg. Co.'s recent fire was served to employees who had enabled the firm to resume production within 12 days of the disaster.

Details which have come to light following the original report of the conflagration show that Sweden Freezer executives conferred on the selection of a new factory location while firemen fought the blaze.

The firm promptly decided on a year-old building at 3401 17th Ave. West and began moving in what equipment and office supplies had been salvaged from the original site. Though floor space was still occupied by ovens and bakery equipment from the former occupants of the building, Sweden Freezer improvised production and office facilities so that output could begin at the earliest opportunity. Many employees worked from hastily-constructed plywood tables in lieu of desks while inventories were taken and reorganization continued.

The fire occurred June 10, but by June 22 the first ice cream freezer was produced.

Permanent Name Chosen By Salt Lake City Group

SALT LAKE CITY — The business association title "Intermountain Heat & Ventilating Association" was the permanent name which was selected by members of the heating, ventilating, and air conditioning contractors of Utah at an annual election business meeting held here.

The association, which has existed under several unofficial titles for several years, consists of heating, air conditioning, and ventilating engineers, contractors, dealers, and suppliers. Meetings are held once a month to further efficient automatic heat and air conditioning in the Salt Lake City area.

A new charter has been worked out for the organization, and all officers who were proposed in the formation of the group have been elected to full terms.

Included are John L. Margetts, president; W. A. McComb, vice president; Herman J. Haumann, secretary; Richard Wellington, treasurer; Jed Ashton, one-year director; W. J. Stevens, two-year director; and Henry Sheurn, a three-year director.

Murphy Store In Erie, Pa. To Air Condition Lower Floors

ERIE, Pa. — The first floor and downstairs sales rooms of the new G. C. Murphy Co. store building here will be air conditioned, including the rest rooms. Construction on the new building is about to get underway. Sessinghaus & Ostergaard, Inc. of Erie are the contractors.

Cooler Supermarkets Induce Customer To Shop Longer

BROOKLYN — More attractive shopping conditions for customers, the minimizing of price markdowns on merchandise which are necessitated by both dust and dirt, a considerable cut in redecoration cost, and the elimination of spoilage in perishable food products are all numbered among the advantages of complete air conditioning installed in the 13 supermarkets of the H. C. Bohack Co., with headquarters here.

Thirteen of the chain's 316 supermarkets have already been air conditioned, with remote-control systems which range anywhere from 15 to 50 tons capacity. In all cases, it is the large, open, self-service type of supermarket which is being air conditioned, rather than the small 60 x 80-ft. "package stores" which have been developed by the grocery chain.

"Our spoilage losses have been cut by as much as 2% in stores already air conditioned," a Bohack store official pointed out, "and it is definitely noticeable that customers remain anywhere from 15 minutes to a half an hour longer on shopping trips, and buy considerably more merchandise."

"Not the least important circumstance which air conditioning has brought about is the complete elimination of a steady 'profit leak' in the form of dusty, soiled cartons, paper bags, etc."

Here's How System Works

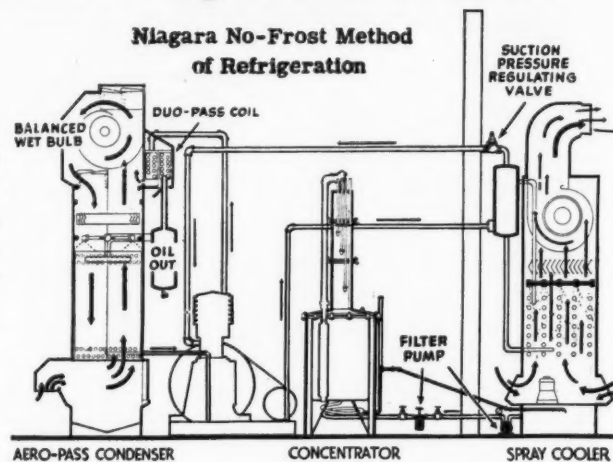


Diagram at right shows how filter and metering gear pump fit into operation scheme of Niagara Blower's "No-Frost" method of refrigeration.

Filter, Metering Gear Pump Improve Design of Niagara 'No-Frost' Method

BUFFALO — Niagara Blower Co. announces improved design and construction of apparatus for the Niagara "No-Frost" method of refrigeration for space or products, a system which, because it cools air below the freezing point of water without permitting the formation of frost or ice on refrigerant coils, is especially applicable to chilling or freezing processes which are improved by avoiding interruptions that may impair quality or limit production.

It is also applied in air conditioning and in processes where extremely dry air or extremely low temperatures are required.

The equipment consists of the Niagara fan spray cooler, which chills air and distributes it as required, the Niagara concentrator, which maintains the proper concentration of Niagara no-frost liquid; the Niagara Aeropass condenser, which condenses the refrigerant gas and controls the head pressure at which the compressor operates, and the compressor, which may be any make selected by the user. These provide a complete refrigeration system that operates with a minimum spread between the suction pressure and head pressure.

As shown in the diagram, air is chilled through contact with coils and a recirculating cold spray of Niagara no-frost liquid solution. As moisture is condensed from the air stream this solution becomes diluted, but as this occurs the proper quantity is diverted to the concentrator where the excess water is evaporated. The

re-concentrated no-frost liquid is returned to the spray cooler, assuring continuous operation without interruption for "defrosting."

In the new design a filter in the liquid line removes any dirt or foreign material that the air stream may have picked up and deposited in the liquid, and a metering gear pump is used to insure uniform delivery of the correct amount of liquid to the concentrator regardless of increased pressure resulting from the operation of the filter, and in proper proportion to the amount of condensation taking place in specific cooling or product freezing.

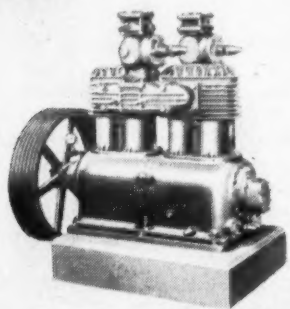
When the pressure reaches 50 lbs. the operation is automatically shut down by a pressure switch and a warning light signals the operator to clean the filter.

Component units are built in a range of sizes suitable for installations using 10 tons of refrigeration upwards.

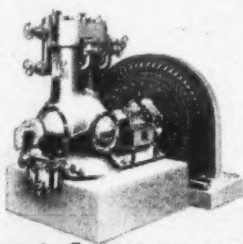
Utica Hotel Ads Emphasize Air Conditioning Facilities

UTICA, N. Y. — The dining areas of the Hotel Utica have been air conditioned and the hotel is taking advantage of the new installation by promoting it in newspaper advertising.

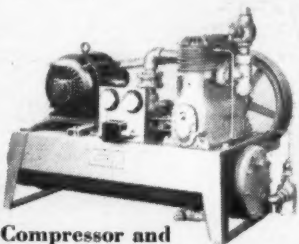
Said an advertisement that broke at the beginning of the hot summer weather: "Whew! Sure was hot—But it was comfortable dining at Hotel Utica, now air conditioned."



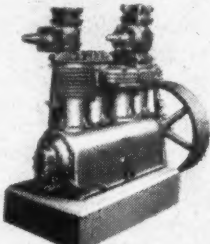
Freon Compressors
7 Model Sizes



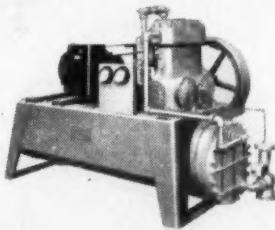
Ammonia Compressors
9 Models
from 2 to 125 h.p. capacity



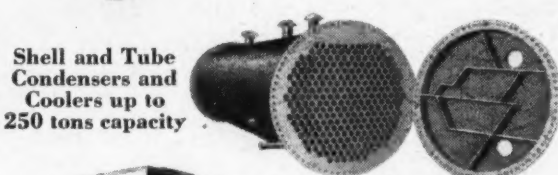
Freon Compressor and
Condensing Units
1 1/2 to 60 h.p. capacity



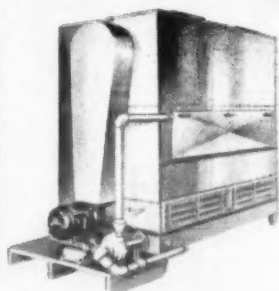
Ammonia Booster
Compressors
from 5 to 40 h.p.
capacity



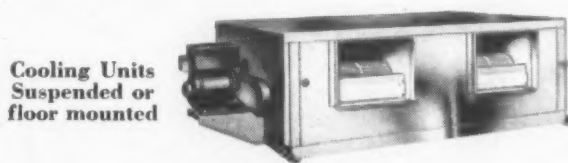
Ammonia Compressor and
Condensing Units from
2 to 15 h.p. capacity



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Coolers up to
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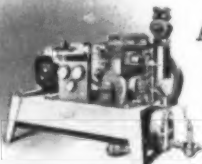
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Short-Wave Radio May Speed Service Calls



Charlie Harris, well-known Boston contractor, receives a message from the central station announcer over the short-wave radio he has installed in his car.



Little space is taken up in the trunk of Harris' car by the short-wave receiver and transmitter. Installation and monthly service charges for this system are claimed to be less than other forms of "mobile" communication.

Receiver-Transmitter Installed In Car Tested by Contractor as Time-Saver

By C. Dale Mericle

CAMBRIDGE, Mass. — A new wrinkle in radio communications systems for automobiles is being tried out here by Charles C. E. Harris, operator of the Harris Refrigeration Co. in this Boston suburb and first vice president of the International Refrigeration Service Engineers Society.

Much interest has been shown by refrigeration contractors and servicemen generally in the postwar introduction of devices which would permit the dispatcher at a service company to communicate directly with service trucks on the road and vice versa.

The time which may be saved in routing servicemen from one call to another or in changing their routing to handle emergency needs is a major consideration.

Still on trial, the system which Harris is using differs somewhat from the radio telephone setup which has been placed in operation in many cities and is being employed by some refrigeration firms.

Instead of being able to telephone any number directly from the car, and likewise receive direct calls from any telephone, the system used by Harris is strictly a short-wave radio operation. Messages are relayed through an announcer at the radio station. There is no direct communication between the driver and the person calling or being called.

Big advantage, however, lies in the cost of having this radio system installed as compared with a direct telephone hookup. Monthly service charges also run considerably less.

In the Boston area, Harris says, it

costs but \$25 to install the radio system, whereas installation charges for the direct telephone hookup are very much higher.

Monthly charges are \$25 minimum, which includes 30 completed calls. For 100 calls the charge is \$37.50; for 150 calls, \$47.50. These figures are less than for the telephone system, according to Harris.

Installation is a relatively simple matter, he explained. In the trunk of Harris' car (Joseph T. Callahan, service manager for the firm, also has his car so equipped) two compact radio sets are located, one a transmitter, the other a receiver.

Beneath the dashboard is the loudspeaker, and conveniently located in the center of the dash is the small control panel and a hand-type phone. It is not necessary to install a new generator or otherwise augment the car electrical system.

"It never pulls more than 5 amps," Harris said.

The control panel is simple, having only a volume control and a "squell" knob, the latter being used to eliminate interference.

Harris describes the operation of the system as follows:

"When you first get into your car you flick on the switch, pick up the phone, and when the air is clear, you merely announce '581 is on the air.'"

(Each car is assigned call letters or numbers. Call number of Service Manager Callahan's car is 582.)

"Then," continues Harris, "the announcer at the station acknowledges your call. At this time you may, if you wish, tell the announcer your location and where you're heading.

The announcer may have messages for you, and will relay them to you.

"From then on, the announcer can send out a call to you. Whenever you get out of the car, you tell the announcer that '581 is signing off at such and such a location.'"

"The announcer will relay this information to anyone trying to locate me, who can then telephone directly to that location, provided, of course, there's a phone."

Although the announcer can be heard by all subscribers to the service, messages from the car to the announcer are on a different wavelength so it would be difficult to pick up an entire conversation, Harris pointed out.

Another advantage he mentioned was that faster service was obtainable through the short-wave radio than with the automobile telephone setup. One lengthy telephone call, Harris declared, will tie up the whole system, but on the radio, the announcer can give priority to emergency calls and adroitly handle the others.

Harris said he didn't know in just how many cities this service was available, but that it was in operation in New York City as well as Boston. In Boston it is handled by the U-Drive-It organization.

"During the busiest part of the season, the servicemen usually start out in the morning with a list of calls that will keep them busy all day. In slack seasons, however, this is not true, and the radio system should help us in routing servicemen to calls without delay.

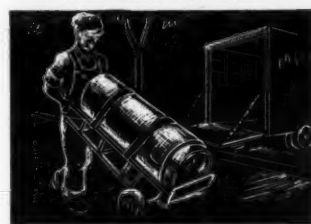
"Already some of our customers have been quite impressed by our having this short-wave setup," Harris commented.

Easload

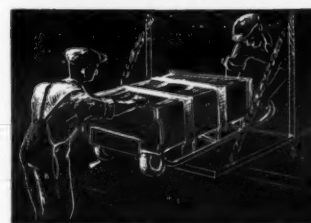
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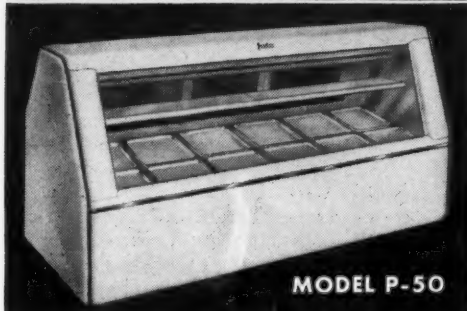
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68 Industry Producers Submitted Sales Data For First Quarter

WASHINGTON, D. C.—Shipments of air conditioning and commercial refrigeration equipment and accessories as reported to the Bureau of the Census were valued at \$52.1 million for the first quarter of 1948, an increase of 17% over the \$44.6 million shipped during the fourth quarter of 1947.

With the exception of condensing units, shipments of major classes of equipment increased during the first quarter of 1948.

The figures released by the Bureau of the Census is based on the activity of 68 manufacturers of components and accessories and complete air conditioning equipment, one less than the 69 reporting in the fourth quarter of 1947.

Table 1 presents summary data on domestic and export shipments for the fourth quarter of 1947 and the first quarter of 1948 (some of the figures for the fourth quarter of 1947 have been revised). Table 2 covers detailed information on these products for the first quarter of 1948.

The shipment statistics included in the report apply to equipment actually billed and shipped. These figures are equivalent to completed sales. Complete units delivered on consignment or shipped to a branch warehouse for stocks are not included until such time as they are sold.

Dollar values shown are the manufacturers' net billing prices, f.o.b. factory. The data for some types of air conditioning and refrigeration equipment have been combined in the tables of this report.

Air Conditioning, Commercial Refrigeration Shipments for First Quarter of 1948

Table 1—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment: Summary of Shipments by Major Class of Product, First Quarter 1948 and Fourth Quarter 1947

Product	Shipments of Complete Units, First Quarter 1948		Domestic†		Export‡	
	No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)
Section I—Components and Accessories						
Total	39,051,071	34,857,474	16,652	15,284,472	2,372,521	4,193,597
Condensing units	173,812	17,656,993	157,160	15,284,472	16,652	2,372,521
Ammonia refrigerants	425	631,664	352	546,597	73	85,067
Refrigerants except ammonia	173,387	17,025,329	156,808	14,737,875	16,579	2,287,454
Air cooled	163,893	13,640,170	148,498	11,821,743	15,395	1,818,427
Open type	66,081	7,105,276	50,939	5,305,796	15,142	1,799,480
Hermetic type	97,812	6,534,894	97,559	6,515,947	253	18,947
Water cooled	9,494	3,385,159	8,310	2,916,132	1,184	469,027
Compressors, compressor units	44,481	6,885,917	37,581	6,113,181	6,900	772,736
Ammonia refrigerants	1,592	2,962,306	1,389	2,603,379	203	358,927
Refrigerants except ammonia	42,889	3,923,611	36,192	3,509,802	6,697	413,809
Centrifugal refrigeration machines	83	2,421,621	74	2,145,659	9	275,962
Heat exchanger equipment	1,489	12,086,540	1,334	11,314,162	155	772,378
Evaporative condensers	22,479	4,061,842	20,295	3,727,821	2,184	334,021
Unit coolers	3,649	1,581,937	3,245	1,451,570	404	130,367
Air conditioning	18,830	2,479,905	17,050	2,276,251	1,780	203,654
Refrigeration						
Other heat exchanger equipment§		6,110,691		5,896,100		214,591
Section II—Self-Contained Air Conditioning Units and Ice Making Machines						
Total	22,146	12,331,237	20,635	11,466,602	1,511	864,635
Self-contained air conditioning units	11,420	2,750,804	10,265	2,204,632	1,155	546,172
Room type	10,726	9,580,433	10,370	9,261,970	356	318,463
Other than room type	2,213	759,505	2,064	678,095	149	81,410
Ice making machines						

Product	Shipments of Complete Units, Fourth Quarter 1947*		Domestic†		Export‡	
	No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)
Section I—Components and Accessories						
Total	37,907,568	33,197,674	16,643	15,111,778	2,356,896	4,709,894
Condensing units	186,425	18,529,384	168,782	15,961,245	17,643	2,568,139
Ammonia refrigerants	457	624,011	363	512,233	94	111,778
Refrigerants except ammonia	185,968	17,905,373	168,419	15,449,012	17,549	2,456,361
Air cooled	175,049	14,321,624	158,614	12,433,142	16,435	1,888,482
Open type	82,000	8,386,209	65,761	6,516,195	16,239	1,870,014
Hermetic type	93,049	5,935,415	92,853	5,916,947	196	18,468
Water cooled	10,919	3,583,749	9,805	3,015,870	1,114	567,879
Compressors, compressor units	50,764	6,198,651	37,516	5,044,088	13,248	1,154,563
Ammonia refrigerants	1,377	2,734,402	1,082	2,062,310	295	672,092
Refrigerants except ammonia	49,387	3,464,249	36,434	2,981,778	12,953	482,471
Centrifugal refrigeration machines	89	2,210,011	81	2,089,177	8	120,834
Heat exchanger equipment	1,267	10,969,522	1,131	10,103,164	136	866,358
Evaporative condensers	1,267	1,546,826	1,131	1,392,198	136	154,628
Unit coolers	26,858	4,089,237	24,033	3,660,289	2,825	428,948
Air conditioning	2,977	1,124,767	2,853	1,024,759	124	100,008
Refrigeration	23,881	2,964,470	21,180	2,635,530	2,701	328,940
Other heat exchanger equipment§		5,333,459		5,050,677		282,782
Section II—Self-Contained Air Conditioning Units and Ice Making Machines						
Total	9,891	6,105,502	8,022	4,998,150	1,869	1,107,352
Self-contained air conditioning units	4,628	1,297,043	3,456	821,134	1,170	475,909
Room type	5,265	4,808,459	4,566	4,177,016	699	631,443
Other than room type	2,504	564,466	2,274	428,873	230	135,593
Ice making machines						

Table 2—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment: Shipments by Type of Product, First Quarter 1948

Product	Shipments of Complete Units		Domestic*		Export†		No. of Comps. Made by Reporting Firms and No. of Units Plants Used In	
	No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)	Reported Shipped	Re-ported
Section I—Components and Accessories								
Total	39,051,071	34,857,474	16,652	15,284,472	2,372,521	4,193,597	69	
Condensing units, total	173,812	17,656,993	157,160	15,284,472	16,652	2,372,521	33	
Refrigerants except ammonia, total†	173,387	17,025,329	156,808	14,737,875	16,579	2,287,454	30	
Air cooled, total	163,893	13,640,170	148,498	11,821,743	15,395	1,818,427	26	
Open type, total	66,081	7,105,276	50,939	5,305,796	15,142	1,799,480	24	
1/2 hp. and under	3,413	137,545	2,720	109,433	693	28,112	6	
1/4 hp.	12,816	821,811	9,669	587,679	3,147	234,132	21	
1/2 hp.	23,335	1,783,223	18,364	1,330,512	4,971	452,711	22	
3/4 hp.	12,362	1,290,774	9,590	963,228	2,772	327,546	21	
1 hp.	6,871	1,017,516	5,376	778,744	1,495	238,772	19	
1 1/2 hp.	3,518	788,030	2,665	620,815	853	167,215	19	
2 hp.	1,703	644,667	1,317	549,015	386	95,652	19	
3 hp.	1,323	375,301	911	280,524	412	114,777	16	
3 and 5 hp.	740	246,409	327	105,846	413	140,563	11	
Hermetic type, total	97,812	6,534,894	97,559	6,515,947	253	18,947	10	
1/2 hp. and under	29,068	1,353,283	29,031	1,351,745	37	1,538	7	
1/4 hp.	44,131	3,423,472	44,092	3,421,139	39	2,333	10	
1/2 hp.	19,451	1,264,502	19,366	1,258,246	85	6,256	9	
3/4 hp. and over	5,162	493,637	5,070	484,817	92	8,820	7	
Water cooled, total	9,494	3,385,159	8,310	2,916,132	1,184	469,027	23	
1/2 hp. and under	84	9,718	79	9,251	5	467	5	
1/4 hp.	1,279	172,941	1,107	148,593	172	24,348	12	
3/4 hp.	1,192	192,318	1,116	179,585	76	12,733	16	
1 hp.	2,100	429,278	1,880	382,104	220	47,174	16	
1 1/2 hp.	1,237	314,778	1,135	290,102	102	24,676	15	
2 hp.	727	202,416	669	185,877	58	16,539	16	
3 hp.	900	333,654	672	245,453	228	88,201	19	
5 hp.	952	492,609	784	406,948	168	85,661	18	
7 1/2 hp.	325	256,253	272	216,928	53	39,325	14	
10 hp.	307	271,904	254	229,974	53	41,930	12	
15 hp.	168	211,703	148	186,920	20	24,783	12	
20 hp.	76	123,774	59	94,405	17	29,369	10	
25 hp.	61	109,506	59	107,691	2	1,815	10	
30 hp.	18	40,344	12	26,918	6	13,426	4	
40 hp.	24	54,034	24	54,034			3	
50 hp. and over	44	169,929	40	151,349	4	18,580	6	
Ammonia refrigerants								
Reciprocating water cooled, total	425	631,664	352	546,597	73	85,067	8	
7 1/2 hp. and under	146	122,900	110	94,010	36	28,890	7	
10 hp.	82	102,904	62	77,947	20	24,957	8	
15 hp.	86	140,251	73	116,002	13	24,249	6	
20 hp. and over	111	265,609	107	258,638	4	6,971	6	

(Concluded on next page)

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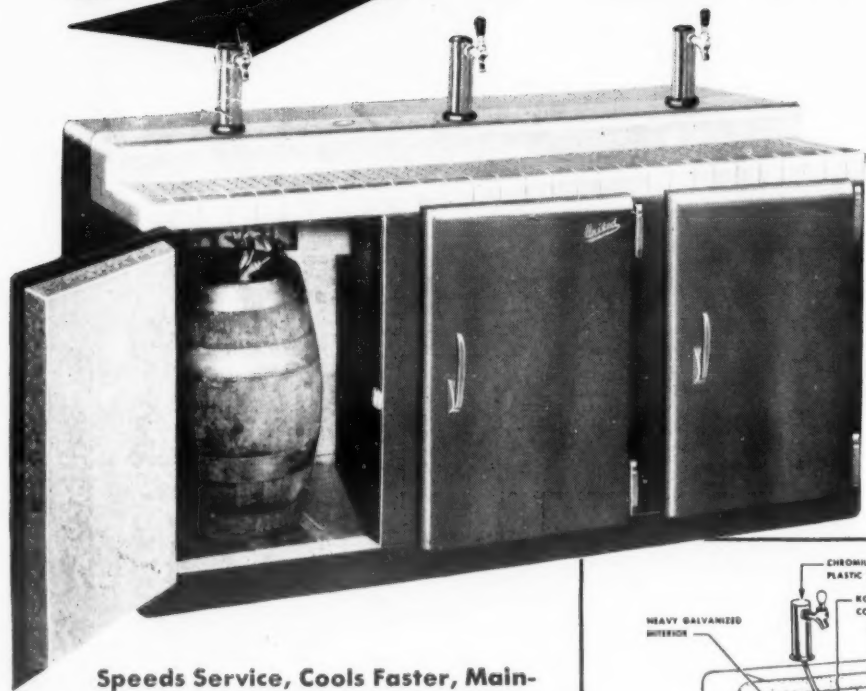
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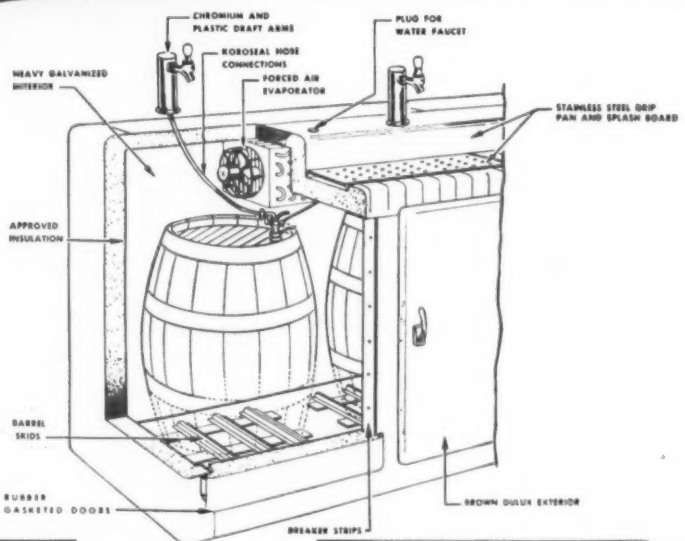
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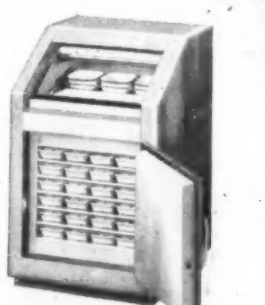
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UNITED REFRIGERATOR COMPANY

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Table 2 (Cont.)—Air Conditioning Equipment and Components And Accessories for Air Conditioning and Commercial Refrigeration Equipment: Shipments by Type of Product

Product	Shipments of Complete Units		Domestic*		Export†		No. of Comps. Made by Reporting Firms and No. of Units in Plants Reported as Shipped	
	Total No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)
Compressors and compressor units,								
total	44,481	6,885,917	37,581	6,113,181	6,900	772,736	175,209	32
Refrigerants except ammonia, total‡	42,889	3,923,611	36,192	3,509,802	6,697	413,809	174,988	28
1/4 hp. and under	23,891	559,002	18,616	441,445	5,275	117,557	84,250	17
1/2 hp.	8,946	266,142	8,394	248,367	552	17,775	39,616	16
3/4 hp.	3,366	114,122	3,059	107,491	307	6,631	16,766	16
1 hp.	627	33,927	600	32,549	27	1,378	11,197	14
1 1/2 hp.	1,279	79,289	1,136	71,646	143	7,643	4,975	15
2 hp.	97	8,534	72	6,250	25	2,284	3,146	13
3 hp.	1,092	78,266	1,006	72,158	86	6,108	1,906	13
5 hp.	799	125,687	745	118,920	54	6,767	4,333	15
7 1/2 hp.	960	219,820	894	202,748	66	17,072	7,755	14
10 hp.	213	111,349	205	106,334	8	5,015	324	11
15 hp.	243	144,141	219	127,585	24	16,556	339	12
20 hp.	322	281,924	272	240,321	50	41,603	184	12
25 hp.	102	151,147	102	151,147	...	...	73	11
30 hp.	351	411,139	325	382,749	26	28,390	67	10
40 hp.	101	130,580	99	127,728	2	2,852	6	7
50 hp.	150	305,296	139	283,871	11	21,425	18	7
60 hp.	189	397,403	159	330,543	30	66,860	11	7
75 hp.	97	219,945	92	197,549	5	22,396	7	7
100 hp. and over	29	102,639	27	97,468	2	5,171	14	4
100 hp. and over	35	183,259	31	162,933	4	20,326	1	3
Ammonia refrigerants,								
total§	1,592	2,962,906	1,389	2,603,379	203	358,927	221	12
7 1/2 hp. and under	184	86,904	153	71,784	31	15,120	120	7
10 hp.	131	79,097	115	66,374	16	12,723	39	7
15 hp.	131	121,017	98	88,807	33	32,210	42	5
20 hp.	191	183,618	180	169,454	11	14,164	19	8
25 hp.	130	190,168	106	155,995	24	34,173	...	4
30 hp.	194	278,991	174	247,849	20	31,142	...	6
40 hp.	90	181,689	84	167,172	6	14,517	1	7
50 hp.	155	301,867	133	256,554	22	45,313	...	5
60 hp.	98	261,939	90	236,086	8	25,853	...	5
75 hp.	87	240,797	74	203,839	13	36,958	...	5
100 hp.	119	428,192	104	376,571	15	51,621	...	6
101 hp. and over	82	608,027	78	562,894	4	45,133	...	4

Table 2 (Cont.)—Shipments of Complete Units

Product	Shipments of Complete Units		Domestic*		Export†		Plants Reported as Shipped	
	Total No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)	No.	Value (dollars)
Centrifugal refrigeration machines (water and brine chilling) total§§	83	2,421,621	74	2,145,659	9	275,962	4	
200 hp. and under	29	463,565	28	445,757	1	17,808	3	
201 hp. and over	54	1,958,056	46	1,699,902	8	258,154	3	
Heat exchanger equipment, total	...	12,086,540	...	11,314,162	...	772,378	46	
Evaporative condensers, total||	1,489	1,914,007	1,334	1,690,241	155	223,766	19	
5 tons and under	178	49,248	167	46,443	11	2,805	10	
5.1 to 7.5 tons	96	45,173	86	38,743	10	6,430	12	
7.6 to 10 tons	174	103,425	167	99,131	7	4,294	15	
10.1 to 15 tons	157	118,095	138	101,455	19	16,640	15	
15.1 to 20 tons	82	84,699	75	75,389	7	9,310	13	
20.1 to 30 tons	261	300,883	224	252,331	37	48,552	14	
30.1 to 50 tons	292	477,009	248	405,398	44	71,611	15	
Over 50 tons	249	735,475	229	671,351	20	64,124	15	
Unit coolers, total	22,479	4,061,842	20,295	3,727,821	2,184	334,021	31	
Air conditioning remote type, total**	3,649	1,581,937	3,245	1,451,570	404	130,367	17	
3 tons and under	1,672	184,893	1,372	130,540	300	54,353	7	
3.1 to 5 tons	277	92,178	264	89,112	13	3,066	11	
5.1 to 10 tons	378	188,251	356	182,031	22	6,220	15	
10.1 to 25 tons	914	648,505	862	610,565	52	37,940	16	
Over 25 tons	408	468,110	391	439,322	17	28,788	8	
Refrigeration, total††	18,830	2,479,905	17,050	2,276,251	1,780	203,654	25	
Ceiling and wall mounted, total	17,802	1,238,275	16,090	1,103,944	1,712	134,331	23	
1,000 B.t.u./hr. and under	527	16,260	403	12,881	124	3,379	4	
1,001 to 2,000 B.t.u./hr.	2,299	94,501	2,013	83,059	286	11,442	14	
2,001 to 4,000 B.t.u./hr.	5,038	196,233	4,646	172,198	392	24,035	16	
4,001 to 6,000 B.t.u./hr.	2,685	156,486	2,444	140,909	241	15,577	18	
6,001 to 8,000 B.t.u./hr.	2,774	203,784	2,525	182,711	249	21,073	19	
8,001 to 12,000 B.t.u./hr.	1,724	168,320	1,574	148,121	150	18,199	19	
12,001 to 18,000 B.t.u./hr.	1,725	200,212	1,485	165,342	240	34,870	16	
Over 18,000 B.t.u./hr.	1,030	204,479	1,000	198,723	30	5,756	9	
Floor mounted dry type, total	697	717,914	645	668,378	52	49,536	15	
5 tons and under	211	136,278	181	117,040	30	19,238	13	
5.1 to 7.5 tons	248	269,703	240	260,398	8	9,305	11	
7.6 to 10 tons	111	148,514	107	139,414	4	9,100	10	
10.1 to 15 tons	89	94,667	79	82,774	10	11,893	6	
Over 15 tons	38	68,752	38	68,752	...	...	5	
Floor mounted spray type, total	331	523,716	315	503,929	16	19,787	9	
5 tons and under	13	11,460	10	9,834	3	1,626	4	
5.1 to 7.5 tons	181	311,772	173	302,183	8	9,589	8	
7.6 to 10 tons	28	30,257	28	30,257	...	...	4	
10.1 to 15 tons	66	94,654	65	92,629	1	2,025	4	
Over 15 tons	43	75,573	39	69,026	4	6,547	5	
Other heat exchanger equipment, total	...	6,110,691	...	5,896,100	...	214,591	35	
Condensers, shell and tube and shell and coil	...	788,265	...	703,156	...	85,109	17	
Shell and tube liquid coolers	...	304,688	...	278,725	...	25,963	13	
Shell and coil liquid coolers	...	37,998	...	35,084	...	2,914	4	
Fin coils—heating other than forced air units	...	1,418,102	...	1,414,263	...	3,839	12	
Fin coils—cooling other than forced air units	...	2,259,735	...	2,220,230	...	39,505	20	
Evaporators, plate type	...	1,301,903	...	1,244,642	...	57,261	8	

Section II—Self-Contained Air Conditioning Units and Ice Making Machines

Self-containing air conditioning units, total	22,146	12,331,237	20,635	11,466,602	1,511	864,635	16
Room type, total	11,420	2,750,804	10,265	2,204,632	1,155	546,172	8
Window sill type	11,420	2,750,804	10,265	2,204,632	1,155	546,172	8
Floor type	10,726	9,580,433	10,370	9,261,970	356	318,463	14
Other than room type, total††	2,994	1,919,971	2,896	1,856,596	98	63,375	13
3 tons and under	6,996	6,215,787	6,763	6,021,174	233	194,613	13
5 tons	299	403,075	296	398,329	3	4,746	8
7.5 tons	232	475,477	221	448,169	11	27,308	9
10 tons	153	378,247	142	349,826	11	28,421	8
15 tons	27	78,074	27	78,074	...	...	4
20 tons	25	109,802	25	109,802	...	...	3
Over 20 tons	2,213	759,505	2,064	678,095	149	81,410	7

*Continental United States. †Includes Canada, Mexico, and United States territories. ‡Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups I to IV conditions. §Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups V to VIII conditions. ||Rating is the maximum horsepower for which the unit is rated. ¶Rating is the refrigeration condensing tonnage at 40° F. suction, 105° F. condensing temperature and 78° F. wet bulb, entering air temperature, with normal air quantity through unit. **Rating is the tonnage at 40° F. refrigerant temperature and air entering at 80° F. dry bulb and 50% relative humidity, and normal air quantity through unit. ††Rating is based on normal air quantity, with refrigerant temperature at 15° F. and air entering at 35° F. dry bulb and 85% relative humidity. ‡‡Rating based on maximum compressor and fan speeds with air entering evaporator at 80° F. dry bulb and 67° F. wet bulb and condenser water entering at 75° F. and leaving at 95° F., or air entering air-cooled condenser at 95° F. dry bulb. §Combined to avoid disclosing the operations of individual companies.

Omaha Newspaper Gets Air Conditioning and New Water Coolers

OMAHA, Neb.—Newest addition to major air conditioning installations here is in the new Omaha World-Herald building, with 125,000 sq. ft. of working space on two floors, plus a full basement and penthouse.

Wray M. Scott Co., Inc., Omaha, installed all air conditioning, heating and plumbing, while Sidles Conditioned Air Co., Omaha, supplied the Chrysler-Airtemp equipment.

The Omaha Westinghouse Electric Supply Co. supplied 18 Westinghouse water coolers which have been placed throughout the new ultra-modern home of the Omaha newspaper, designed for streamlined newspaper production and personnel comfort and efficiency.

The building is designed for future expansion. It can be extended to the east and a third floor can be added. Length is 227 ft. and greatest width is 227 ft.

A feature of the air conditioning installation is in the oval-shaped lobby where two huge circular light domes have air conditioning outlets in their centers. Other lighting includes recessed fixtures that are combinations of daylight fluorescent and incandescent.

The rounded, decorative main entrance has a revolving glass door flanked by large windows trimmed with aluminum. The lobby has tinted upper walls and an acoustical plaster ceiling. Lower walls and the rounded counter are panelled in a greyed walnut, extending to the elevator hall.

WANTED!

We represent a client who requires an outstanding salesman to call on refrigeration jobbers throughout the Midwest. The man selected for this position must be energetic and enthusiastic with an outstanding record of accomplishment. He will represent a well established, Nationally known manufacturer who presently enjoys widespread product acceptance.

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Past record must bear strict investigation. Age 35 to 40.

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Reply by letter only giving complete personal data and business background. All replies will be treated with strict confidence.

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KRAMER TRENTON CO. Trenton 5 N. J.

Refrigeration Problems

And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

How To Use a Refrigerant Table (9)

HOW TO USE REFRIGERANT TABLES

When refrigerant vapor enters the compressor it is at evaporator pressure, (neglecting pressure drop) and this pressure is the saturation pressure corresponding to the temperature of the boiling refrigerant in the "active" part of the evaporator.

But this suction gas entering the compressor has picked up quite a little heat in addition to the heat of the saturated vapor from the evaporator. Therefore it is superheated and its temperature has risen.

SUCTION GAS ENTERING COMPRESSOR

As the gas superheats, it tends to expand and become "thinner," so its specific volume goes up and its density goes down.

Since entropy goes up as the heat content of the gas does, but goes down as the temperature rises, the entropy of the gas entering the

TABLE 7—PROPERTIES OF 'FREON-12' VAPOR IN EVAPORATOR, SUCTION LINE, AND COMPRESSOR

Refrigerant Property	Saturated Vapor 5	Leaving Evaporator 15	Entering Compressor 65	Gain (+), Loss (—) (+)50	Leaving Compressor 163	Gain (+), Loss (—) Refrigerant Through Compressor (+)98.0
Temperature °F.						
Pressure (abs.) p.s.i.a.	26.5	26.5	26.5	.0	107.9	(+)81.4
Pressure (gauge) p.s.i.g.	11.8	11.8	11.8	.0	93.2	(+)81.4
Spec. Volume Cu. ft./lb.	1.485	1.520	1.703	(+) .218	.472	(—) 1.231
Density Lb./cu. ft.	.6735	.6579	.5872	(—) .0863	2.114	(+) 1.5268
Heat Content B.t.u./lb.	78.79	80.18	87.35	(+) 8.56	99.87	(+)11.52
Entropy B.t.u./lb.°F.	.17052	.17347	.18781	(+) .01729	.18781	0

compressor has a higher entropy than that of the saturated vapor in the evaporator, for the heat content has gone up at a faster rate than the absolute temperature has increased.

The first three columns in Table 7 tell the story of the changes in the refrigerant from the time it changed into a saturated vapor in the evaporator, was then superheated 10° in the last tube or so of the evaporator, and finally was superheated another 50° in the suction line, by the time it got to the compressor suction service valve.

When the suction gas goes into the

compressor, it is compressed, so we can expect its volume to go down a great deal, and of course its density to rise proportionately. Since its volume is much less, we can expect its pressure to be a great deal more.

COMPRESSION HEATS REFRIGERANT VAPOR

Work has to be done on the gas to compress it. Since work-energy has been added to the gas, we can expect that the heat content of the gas will go up, for the work-energy was changed to heat energy during compression. Moreover, since heat has been added, and the gas put into a

TABLE 10

Refrigerant Property	Entering Condenser	Vapor Saturated	Gain (+), Loss (—)	Liquid Leaving Condenser	Gain (+), Loss (—) Refrigerant Through Condenser
Temperature °F.	163	86	(—)77	86	0
Pressure (abs.) p.s.i.a.	107.9	107.9	0	107.9	0
Pressure (gauge) p.s.i.g.	93.2	93.2	0	93.2	0
Spec. Volume Cu. ft./lb.	.472	.389	(—) .083	.0124	(—) .3766
Density Lb./cu. ft.	2.114	2.569	(+) .455	80.63	(+)78.061
Heat Content B.t.u./lb.	98.87	87.37	(—)12.5	27.72	(—)59.65
Entropy B.t.u./lb.°F.	.18781	.16640	(—) .01141	.05708	(—) .10932

Properties of "Freon-12" through the condenser. Note gain and loss signs in relation to those in Table 7.

smaller space, we can expect that the temperature of the compressed gas will go up a great deal.

But the entropy does not change! The temperature goes up at the same rate as the total heat content increases, so the entropy remains the same.

This is called "adiabatic" compression—compression at constant entropy. In actual practice, this is not quite true, but it is nearer to being true than any other theoretical condition, so adiabatic compression, with constant entropy, is usually assumed.

ENTROPY IS THE GUIDE

We know that the entropy of the gas going into the compression, is .18781 B.t.u./lb.°F., (see last week's article in this column) so it will also be the entropy of the hot gas discharge from the compressor.

The discharge pressure tells us which superheat table to use. If, for example, the discharge pressure is 93.2 p.s.i. gauge or 107.9 p.s.i. absolute, we would turn to the superheat table for 107.9 p.s.i. absolute.

But there is no 107.9 p.s.i. superheat table, so we have to interpolate between the 100 and 110 p.s.i.a. tables. We want to locate the point where the absolute pressure is 107.9 p.s.i. and the entropy is .18781, and we will then be able to determine the temperature, volume, and heat content of the hot-gas discharge from the compressor.

By inspection of Tables 8 and 9 it looks as if it will fall between 160° and 170°. By interpolation, we find that the entropy for 107.9 p.s.i.a. and 160° is .18699 and for 170° is .18963. Again by interpolation, we find that .18781 is the entropy for 163°. So the hot-gas discharge from the compressor is at a temperature of 163°.

	Abs. Pressure 100 lb./sq. in. Gauge Pressure 85.3 lb./sq. in. (Saturation Temp. 80.9° F.)		
Temp. °F. (at sat'n)	(0.419)	(86.89)	(0.16659)
90	0.430	88.32	0.16926
100	0.442	89.93	0.17210
150	0.499	97.99	0.18590
160	0.510	99.63	0.18856
170	0.521	101.28	0.19120
180	0.531	102.94	0.19381
350	0.707	132.80	0.23510
360	0.718	134.68	0.23738

From tables by Kinetic Chemicals, Inc.

Temp. °F.	Abs. Pressure 110 lb./sq. in. Gauge Pressure 95 3 lb./sq. in. (Saturation Temp. 87.3° F.)		
(at sat'n)	(0.382)	(87.50)	(0.16635)
90	0.385	87.91	0.16711
100	0.396	89.51	0.17001
150	0.449	97.66	0.18394
160	0.459	99.31	0.18660
170	0.469	100.97	0.18924
180	0.479	102.64	0.19187
350	0.641	132.63	0.23333
360	0.651	134.50	0.23562

From tables by Kinetic Chemicals, Inc.

From tables by Kinetic Chemicals, Inc.

From that, it is an easy matter to again interpolate and find that the volume of the 163° gas is .472 cu. ft./lb. and the heat content is 99.87 B.t.u./lb.

HEAT OF COMPRESSION

The suction gas had 87.35 B.t.u./lb. in it when it entered the compressor. It kept this heat, but added to it was the "heat of compression," which came from the work done on the gas by the motor.

Since the hot gas coming out of the compressor had in it 99.87 B.t.u./lb., then the difference, 12.42 B.t.u./lb., represents the "heat of compression." If we refer to the saturation tables for "Freon-12," we find that with a discharge (and condensing) pressure of 107.9 p.s.i.a., or 93.2 p.s.i.g., the condensing temperature is 86°, which of course means that the hot gas at 163° must cool to 86° before it condenses and turns into a liquid, which is also at 86°.

The heat content of the saturated vapor at 86°, just before it condenses, is (from the saturation tables) 87.37 B.t.u./lb. Thus the hot gas must cool 77°, from 163° to 86° and give up 12.5 B.t.u./lb., from 99.87 to 87.37 B.t.u./lb. of sensible heat before it starts to condense.

In doing this, it drops from a specific volume of .472 to .389 cu. ft./lb., and its density rises from 2.114 to 2.569 lb./cu. ft. Its entropy drops from .18781 to .16640 B.t.u./lb.°F.

If the 86° saturated vapor continues to lose heat at the rate of 59.65 B.t.u./lb., (its latent heat of vaporization) it turns into a liquid. Its temperature does not change in this process, nor does its pressure, but its volume drops from .389 to .0124 cu. ft./lb. (density rises from 2.569 to 80.63 lb./cu. ft.) and its entropy drops to .05708 B.t.u./lb.°F.

TOTAL HEAT TO CONDENSER

The total amount of heat given up by the hot gas entering the condenser, to enable it to change to an 86° liquid ready to use over again to provide refrigeration, is therefore the heat content of the hot discharge gas of 99.87 B.t.u./lb. less the heat content of the 86° liquid of 27.72 B.t.u./lb. or 72.15 B.t.u./lb. This 72.15 B.t.u./lb. consists of the sensible heat of 125 B.t.u./lb. lost in cooling from a 163° hot gas to an 86° saturated vapor, and the latent heat of vaporization of 59.65 B.t.u./lb.

Tracing through the temperatures, pressures, volumes, densities, heat content and entropies not only shows how the saturation and superheat tables may be used, but it also gives a clearer understanding of what is going on inside the system.

The saturation and superheat tables are used in obtaining exact values, as illustrated in the above description and examples, and are therefore valuable for use in laboratory computations in which accuracy is necessary.

WHAT MOLLIER DIAGRAM IS

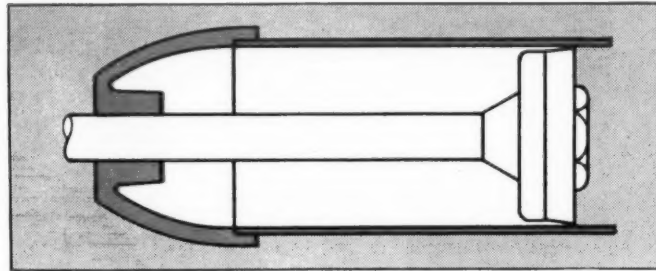
The Mollier diagram is a set of curves built up from the values in the saturation and superheat tables. Mollier diagrams for all of the commonly used refrigerants are available. They offer a much quicker and easier way of determining the heat content, volume (and by calculation its reciprocal—density) pressure, temperature and entropy.

Although the values taken from the Mollier diagrams are not quite as accurate as those that may be calculated and interpolated from the tables, the use of the Mollier diagram is sufficiently accurate for most field problems of a practical nature, where extreme accuracy is not required.

Description and use of the Mollier diagram appeared in this column in the October, (1946) 14th and 21st issues of AIR CONDITIONING & REFRIGERATION NEWS.

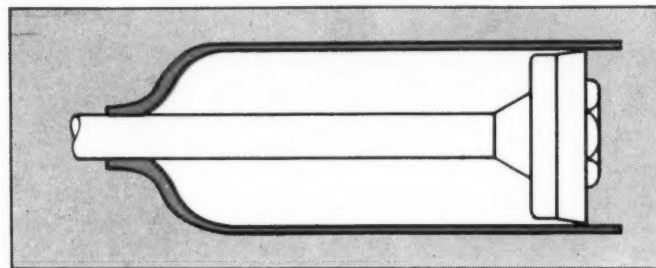
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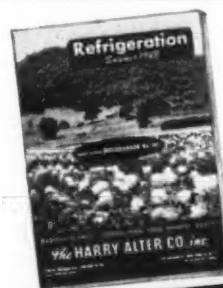
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Evaporator Held Constant,**Unnecessary Cycling, Current Consumption Cut by Capacity Control, Schnacke Says**

EVANSVILLE, Ind. — Designed to maintain even evaporator temperatures and to improve refrigeration system efficiency in air conditioning and refrigeration applications, a new capacity control device called the Thermatrol has been introduced by Schnacke, Inc., here.

It is claimed to perform three functions: (1) maintain constant evaporator temperatures, (2) prevent unnecessary cycling, and (3) reduce current consumption in proportion to the actual load.

Initial cost and cost of installation are also claimed to be much lower than for other types of capacity modulation.

The Thermatrol is an automatically controlled valve actuated by back pressure to control the flow of refrigerant pumped by the compressor. The valve is a butterfly type which may be entirely closed or open, or partially closed, depending on evaporator needs, according to Schnacke.

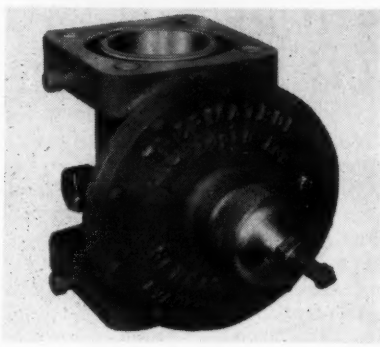
An adjustable spring is linked through a diaphragm with the butterfly valve, permitting the device to be set for various pressures. A bypass in the valve prevents the possibility of a complete vacuum condition.

Mounted on the suction shut-off valve of Schnacke compressors between the evaporator and the compressor, the Thermatrol operates in conjunction with the action of the capillary bulb on the expansion valve.

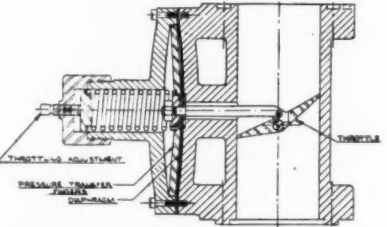
When the feeler bulb of the expansion valve warms up, indicating a need for more refrigerant in the evaporator, the expansion valve permits more refrigerant to pass through, explains Schnacke in describing the operation of the Thermatrol.

This action increases the back pressure, which causes the butterfly valve to open and permit the compressor to pump its full capacity.

When the feeler bulb cools, the expansion valve begins to close, lowering the evaporator pressure. When the back pressure drops to the corresponding setting of the capacity control, the latter begins to unload the compressor by checking the flow of refrigerant to the compressor and keeping the pressure in the evaporator at the desired point.



The Thermatrol capacity control developed by Schnacke mounts on the suction shut-off valve of Schnacke compressors between evaporator and compressor.



Spring-controlled throttle valve of the Thermatrol controls flow of suction gas to compressor so the compressor capacity is loaded or unloaded in step with evaporator requirements.

In performance of this function, Schnacke says, the Thermatrol also decreases the input of electricity to the compressor motor to correspond to the amount of load being handled by the evaporator.

Depending on the load required, the control will maintain a constant curve across the evaporator, Schnacke asserts. It is said to be applicable to any of the company's compressor and condensing unit models.

Frequent starting and stopping of the compressor during the off-peak is eliminated, and the control will not unbalance the compressor or cause undue vibration or unequal wear on any of its parts, it is claimed.

Adjustment of the control involves only setting of the adjustment screw after the system has been properly set with the high and low side gauges, it is claimed. No additional controls, valves, or wiring are required for its installation or operation.

Frigidaire Begins 1-Day District Conferences

DAYTON, Ohio — More than 300 key Frigidaire district commercial refrigeration sales and service personnel across the country will attend a series of 44 one-day district conferences during the next 15-day period, W. F. Switzer, commercial sales manager, has announced. Meetings are scheduled concurrently in five Frigidaire sales regions.

Factory and field leaders who will conduct the meetings in the five regions include: eastern—M. C. Schenk, national business sales manager, and W. F. Laver, regional commercial sales manager. Southeastern—Byron C. Wagner, commercial products manager, and A. C. Doak, regional commercial sales manager. Central—H. A. Beck, assistant to the commercial sales manager, and H. F. Harter and H. H. Ward, regional commercial sales managers.

Southwestern—George Ewing, assistant commercial product sales manager, and R. T. Potter, regional commercial sales manager, Pacific—J. A. Smith, assistant manager of product application, and A. G. Foote, regional commercial sales manager.

Zone Delivery Schedule Miller To Head Midwest District for Servel To Speed Shipments

HIGHLAND PARK, Mich. — To facilitate delivery of bulky items, J. M. Oberc, Inc., parts wholesaler here, has divided up the Detroit metropolitan area into four districts and established a delivery schedule.

Intended primarily to handle such items as units, coils, refrigerants in large cylinders, and sizeable orders, the new service will offer "store door delivery," using a 1½-ton truck with hydraulic lift and one driver and operating out of the recently opened new Oberc headquarters here.

In the southwest district, orders placed before noon of Friday, Tuesday, or Thursday, will be delivered on the morning of Monday, Wednesday, and Friday, respectively.

In the northwest section, orders received before noon of Saturday, Tuesday, or Thursday are delivered in the afternoon of Monday, Wednesday, and Friday, respectively.

For the northeast, orders received before noon on Monday or Wednesday are delivered the next day. In the southeast district orders placed before noon of Monday or Wednesday are delivered the following afternoon.

Emergency orders will still be handled on an emergency basis, while small items or packages will continue to go out parcel post or express.

Delivery of fixtures or equipment that require uncrating, placement, and set-up will be arranged for at cost through a local trucking company, Oberc announced.

EVANSVILLE, Ind. — Basil S. Miller has been named district manager for Servel, Inc.'s electric refrigeration division, according to Harry F. Bell, field sales manager.



Basil S. Miller in his new position he will cover Kansas, Missouri, Illinois, Indiana, and Kentucky. His headquarters will be in St. Louis.

Wholesaler, Coil Firm Stage Traveling Show For Service Groups

WILKES-BARRE, Pa. — A traveling show of refrigeration equipment and supplies was recently staged in the Hotel Sterling here for local service organizations.

It was sponsored by the M & E Refrigeration Accessories Co., a Philadelphia refrigeration and air conditioning supplies wholesaling firm, and the Merchant & Evans Co., manufacturer of blowers and coils, Helmar W. Petersen, M & E Accessories Co., general manager, has reported.

Exhibits in the show included the new model 100-CC comfort cooler and diffusers, unit heaters, and gravity coils manufactured by Merchant & Evans; the Lehigh ½-hp. packaged condensing unit; a cutaway sample of the bare pump; the new No. 211 and No. 212 Automatic Products thermostatic expansion valves; Bonney tools; and Mystic Dri-Pipe insulation.

The 100-CC comfort cooler is a circular type ceiling unit for commercial applications where the compressor is remotely placed, according to Petersen.

The cooler has a rating of 20,750 B.t.u. at a 40° suction based on entering air of 80° dry bulb and 50% humidity. It is furnished in finishes of ripple green or white.

Besides Petersen, Henry A. Adams, Jr., sales manager of the Merchant & Evans Co., and John M. Henderson, M & E sales representative, helped stage the show.

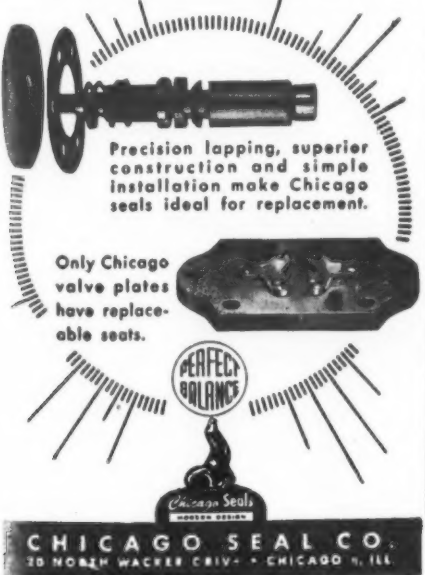
MOTO

Members of the Refrigeration

Your refrigeration house in Central Northern Pa.

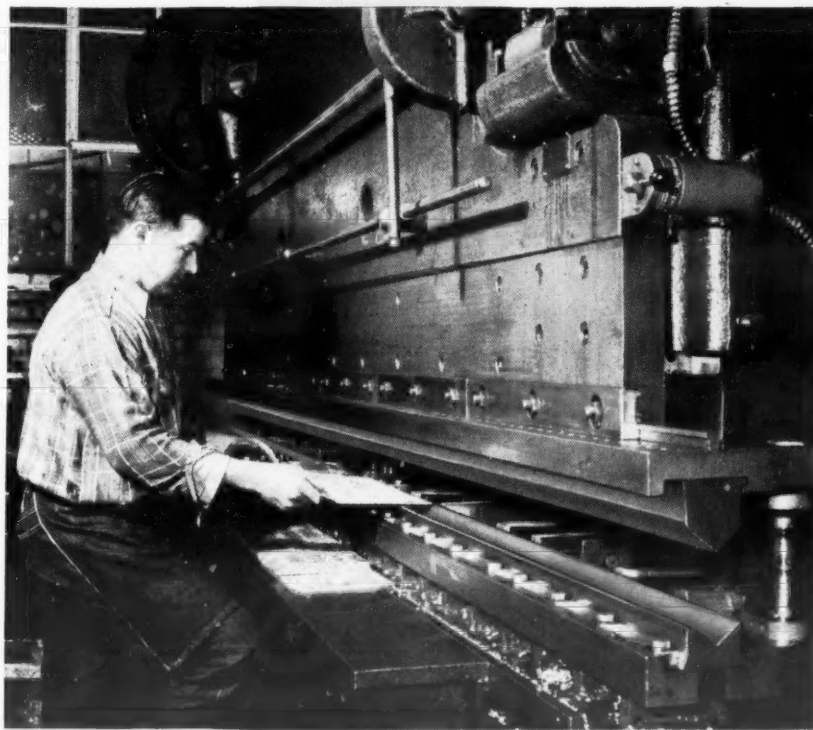
CENTRAL SER

647 S. Warren Street, Syracuse, N. Y.
209-211 Jefferson Ave., Scranton, Pa.

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USE
CHICAGO SEALS
and
VALVE PLATES

YOUR WHOLESALE has Rapid Dehydrators in eight practical sizes: 5 to 200 cu. in.

185 N. WABASH • CHICAGO 1, ILLINOIS



THIS HEAVY SHEET METAL PRESS BRAKE is one of many which enable us to produce entire assemblies of completely interchangeable parts for heavy duty units. Huge hydraulic shears and presses also help make the modern Marlo plant one of the most efficient in the industry.

This gives
MARLO units
plenty of "backbone"

It takes modern machinery to fabricate sturdy structural members accurately and efficiently. Marlo has it! That's why we can engineer so much added stamina into heavy duty industrial air units.

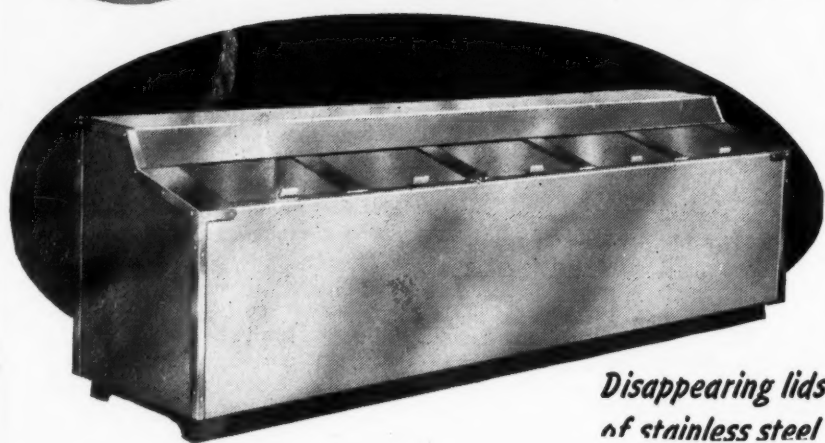
—Another example of how our modern assembly-line production methods build more quality and value, dollar for dollar, into every Marlo product.

Marlo IS THE MARK OF HEAT TRANSFER PROGRESS

MARLO COIL CO. / ST. LOUIS 10, MO.

ROGERS 4, 6, 8, 10 ft.

DRY BEVERAGE COOLERS



Disappearing lids
of stainless steel

39 inches high, 30 inches wide. Compressor compartment and counter top available on all sizes.

and staining. Ba There's

Write for catalogue showing this quality line of refrigeration

Walk-in Coolers
Beverage Coolers
Ice Cream Cabinets
Ice Cream Push Carts
Ice Cream Shoulder Boxes

W. ALLEN

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Industry Yearbook Has Analyses of Markets For Refrigeration

NEW YORK CITY—The section on Air Conditioning, Refrigeration, and Heating in the newly published 1948 issue of the International Industry Yearbook was written by David L. Fiske, consulting engineer of New York City.

This is the first edition of an annual encyclopedia of industrial progress, edited by Lloyd J. Hughlett of the McGraw-Hill Publishing Co., through the International Industry Yearbook, 551 Fifth Ave., New York City. The book contains 28 chapters on as many segments of American industry, by leaders in these various fields.

In the refrigeration division of the Yearbook, Dr. Fiske analyzes the present status of the industry and indicates its potential development, new manufacturing opportunities, and markets for raw materials and finished goods. Now located at 111 Broadway, New York City, he was the editor of the several past editions of the Refrigerating Data Book and is the author of writings on technical and economic phases of his field.

Another Miami Hotel Plans Air Conditioning

MIAMI, Fla.—The lessees of the 100-room Tamiami hotel, West Flagler St., plan to install air conditioning within a short time.

ON THE SPOT

by C. Dale Mericle

14 Different Makes Use Evansville Parts

No discussion of the refrigeration industry in Evansville would be complete without mention of the Hoosier Cardinal Corp. Employing some 1,300 people, this plant has grown in great strides from the small lamp and stamping works of 1928 which concentrated on pressed steel stove legs, the first of their type ever made.

In the 30's the company began producing aluminum parts such as ice trays for the refrigeration industry, not only for those plants located in Evansville, but others scattered throughout the country.

Just recently at an open house held for its employees, Hoosier Cardinal lined up a row of 14 different makes of refrigerators which contain parts it produces.

Some of these parts were plastic, for the company organized its plastics division back in 1936. This division has done a lot of pioneering in the development of plastics production methods and applications. Such development was the "See-Deep" process used for name-plates, instrument panels, automobile horn emblems, and the like.

This process results in a truly beautiful product. In this method the design for the name-plate, say, is engraved on the back of a piece of clear plastic, the design then being painted. The effect is three-dimensional and is certainly eye-catching.

Actually, no engraving process is employed, for the parts are molded to shape when originally formed in the semi-automatic plastics machines.

My first view of the Hoosier Cardinal plant came when I attended a regular meeting of the Seeger Engineers Club. Part of the program was a trip to nearby Hoosier Cardinal and our inspection party was guided by C. W. Borden, plant engineer.

The next day, though, I was privileged to spend some time with W. E. Sherwood, sales manager of the company, who gave me some general background of the organization, and outlined some of the company's latest developments.

One of their latest innovations is a new flexible ice cube tray which lets the user take from one cube to the whole lot out of the tray in a very simple manner.

Because it is flexible, the tray need only be twisted slightly to free the cubes from the tray. It's not necessary to put it under the tap. Extensions at the tops of the grids can then be squeezed gently to free the individual cubes, according to Sherwood's story.

Another new product which Hoosier has developed and is starting to promote is patterned aluminum. This is expected to have many possibilities in the refrigerator and appliance fields.

By means of a special process which the company has devised, alu-

minum sheets can be produced with a variety of patterns, some even closely resembling textile weaves. The latter have quite a startling effect, especially when decorated.

Not too much can be said about this process at the present time, but we'll probably see plenty of it in the not-too-distant future.

Already a large plant, Hoosier Cardinal just recently leased additional facilities in the former Illinois Ordnance plant near Marion, Ill., Sherwood said. The new addition will house added finishing facilities, and is expected to be in operation about Aug. 1. As a result of this move, Hoosier Cardinal plans to increase its stamping facilities at the Evansville plant.

ASRE Section Is Big

To wind up this lengthy series about Evansville and its claim to being the "Center of Refrigeration," we like to pay our respects to the recently organized Evansville Section of the American Society of Refrigerating Engineers.

George Iwashita, Seeger's research director, has served as chairman of the section during its first year of activity, and in the elections for the coming year, which were announced at the meeting I attended, George becomes the section director.

Newly elected chairman is Walter Kuenzli, of Servel, previously mentioned in this series. Wm. E. Mahaffy, of International Harvester, is the new first vice chairman; John G. Reid, Jr., of Servel, second vice chairman, and Franklin Thomas of Seeger will be secretary-treasurer.

This section is exceedingly active and draws a heavy attendance. Figures of 250 to 300 are the usual thing, they told me.

The guest speaker for the night I attended was Leon Monfried of the Ion Exchange Products Dept. of the American Cyanamid Co.

He discussed at length his company's ion exchange process for water purification, which is claimed to make water chemically pure by means of ionic reactions.

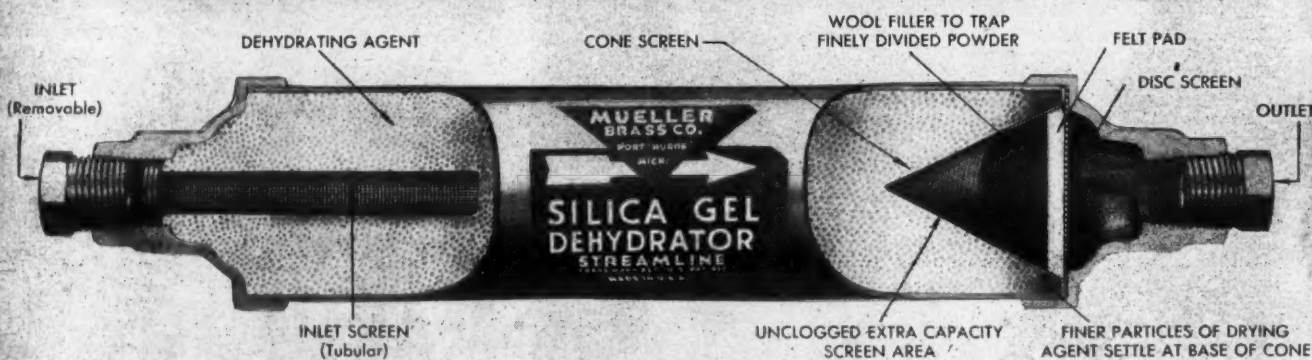
This process, admittedly a fairly expensive one, is being used, however, in many industries, Monfried said. Among its possible applications are:

1. Water softening (complete removal of hardness if possible).
2. Reduction of alkalinity.
3. Partial demineralization.
4. Total demineralization.

One of the applications Monfried mentioned was in ice-making, where demineralized water could be employed for freezing so that the resultant ice would be perfectly clear.

About this time the discussion began to involve a lot of chemistry, and being no chemist, I frankly lost out on the first turn. Nice evening, though, and I was struck by the enthusiastic attendance at the section's meeting. The Evansville group ought to be able to throw a little weight in the ASRE, if they were ever so inclined.

Here is the New MUELLER BRASS CO. REFILLABLE DEHYDRATOR



Readily Removable Inlet For Easy Refilling!

When recharging our new Dehydrator, simply remove the inlet plug—back out the slotted inlet screen tube—shake out the exhausted agent, then replace with new.

In addition to this convenient feature (see illustration above) Mueller Brass Co. Filters and Driers are provided with the CONE SCREEN OUTLET, a specially designed filtering element that adds immeasurably to the life and efficiency of Driers and Filters.

Almost all crystalline dehydrating agents are subject to a certain amount of abrasion while a dehydrator is in service. Small portions of the dehydrating agent break down into very fine powder and crystals. Unless a well-designed filtering element is incorporated in a dehydrator, these fine crystals and powder have a tendency to clog the outlet filter, resulting in restriction to the flow of refrigerant.

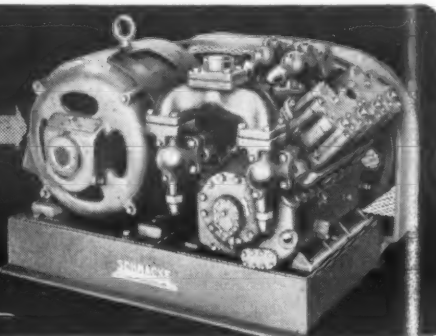
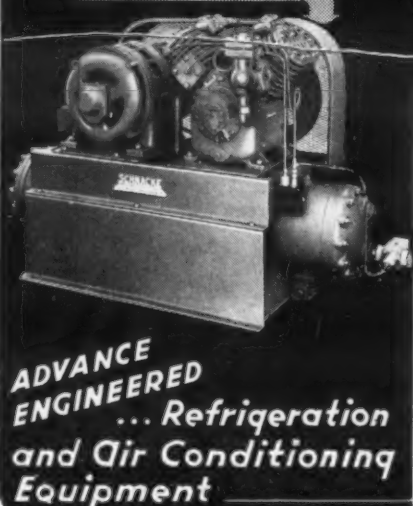
With the MBCO. CONE SCREEN OUTLET, such finer crystals and powder are forced to the base of the cone, leaving the center and tip of the screen open to the free flow of refrigerant.

In addition, the cone screen is filled with pure wool which traps such particles that are sufficiently fine to pass through the screen mesh.

Particular attention has been paid to screen areas in Mueller Brass Co. Filters and Dehydrators, so that each size permits efficient passage to the maximum refrigerant volume that is used in a particular size refrigerant line.

MUELLER BRASS CO. PORT HURON, MICH.

SCHNACKE COMPRESSORS 5 to 50 HP CONDENSING UNITS 5 to 25 HP



More Tons of Refrigeration With Less Horsepower!

Cool gas from the evaporator cools the entire outer surface of the cylinder sleeves in all SCHNACKE compressors, producing more tons of refrigeration with less horsepower. Force feed lubrication, and perfect balance, assures higher efficiency and vibrationless operation.

Schnacke THERMATROL Capacity Control Available with SCHNACKE Compressor and Condensing Unit. Write for details.

SCHNACKE, INC.

1016 E. Columbia St., Evansville, Ind.

Occupant Selects Own Temperature



Thermostat is set for whatever temperature best suits the occupants. Note air inlet grille above mirror.

'Zone' Layout Air Cools 500-Stateroom 'Lurline' with 32 Central Fan Systems

MILWAUKEE—Individually controlled air conditioned comfort from bow to stern highlights the modern luxurious facilities of Matson Navigation Co.'s new *S. S. Lurline*, which was recently placed in service between San Francisco and Hawaii.

Each of the *Lurline's* 500-odd staterooms is equipped with individual, automatic temperature controls engineered by Johnson Service Co. here, J. A. Cutler, Johnson president, declared recently.

The occupant selects his own weather merely by setting the Johnson thermostat in his room. Crew quarters, dining rooms, lounges, and other public areas, as well as provision storage rooms, are also air conditioned and Johnson-controlled.

OUTDOOR AIR FOR EACH ZONE

Cutler revealed that staterooms and other occupied areas of the ship are divided into 32 zones. Each zone is supplied with outdoor air from one of 32 central fan systems.

In general, the staterooms are divided into zones according to exposure, while each dining room, lounge and other public area makes up a zone in itself. Each zone is controlled in the same manner as individual rooms.

Cutler explained that the 32 central fan systems take in outdoor air and, depending upon the outdoor temperature, heat or cool it to about 50° F. The cooling process also reduces the relative humidity of the air.

The central fan systems are completely and individually Johnson-controlled, so that outdoor air of the proper amount, and of the correct temperature and moisture content, can be supplied to each zone, regardless of the requirements of the other zones.

UNIT SET IN CEILING SPACE

Each stateroom is equipped with a small air conditioning unit located in the ceiling space above the wash room. Preconditioned air from the central fan systems is supplied to these units through concealed duct work.

Each room unit has a grille through which air is discharged into the stateroom, and another grille, behind which a heating coil is located, to permit air from the stateroom to return to the unit.

Preconditioned outdoor air from a central fan enters the room unit and induces a flow of air from the room

through the return grille and heating coil. The room air is then mixed with the incoming outdoor air and the mixture is discharged into the room.

About three volumes of room air are recirculated for each volume of preconditioned outdoor air supplied to the unit, the outdoor air being cold enough to supply all of the cooling needed on the warmest day.

Hot water is supplied to the heating coil, in the path of the return air, under control of a Johnson room thermostat operating a Johnson water valve. Whenever all of the cooling is not required, this Johnson thermostat causes heat to be added to the return air, thus raising the temperature of the mixture before it is delivered into the room.

Fred Linander, Johnson Service Co. technician, sailed on the new *Lurline's* "shakedown" cruise and her maiden voyage. He made final adjustments of the automatic temperature control system under actual operating conditions and instructed the ship's mechanics in the function of all Johnson equipment.

'SHAKEDOWN' ADJUSTMENTS

Prior to the recent war, the Johnson firm made installations in a few of the passenger liners operating between the United States and Europe. During the war, in connection with heating and air conditioning systems in cargo ships, the need for extensive installations of automatic temperature and humidity control equipment became apparent.

Similar need was recognized for army transports, all types of navy craft, hospital ships, and almost every conceivable type of vessel. A large number of systems of complete control, standard Johnson apparatus applied to special uses, were installed in wartime ships.

Since the war, the company has made, and still is making, installations in cargo vessels, passenger ships, and aircraft carriers.

Barr Named to New M-A-D Post

RIDGEFIELD, N. J.—Appointment of Earl F. Barr as southern divisional manager for Melchior, Armstrong, Dessau Co., Inc. has been announced by George H. Yeager, vice president in charge of sales.

Barr will make his headquarters in Philadelphia where he has served the company as a sales engineer since 1934. He replaces R. B. Davis.

First Nevada School Bldg. Gets Air Conditioning

LAS VEGAS, Nev.—Complete air conditioning for the Central School administration building of the Park County School Administration has been completed here by Sierra Appliance Co., headed by B. H. Robinson.

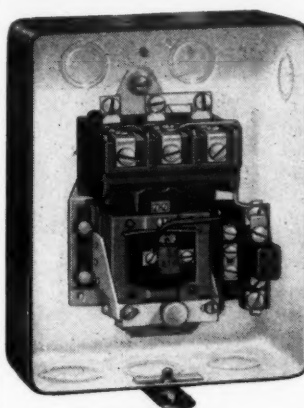
The school building, which dispatches teachers over long rural routes, as well as supplying books, paper, schoolroom furnishings, etc., also centralizes all bookkeeping and personnel management for county schools.

During the summer months, comfortable working conditions will be insured by the installation of a remote control Chrysler-Airtemp 5-ton cooling system. Each office is cooled by a separate duct, with a damper system which makes it possible to air condition only the areas actually in use.

This, incidentally, is the first air conditioned building in the Nevada school systems, according to Robinson, who both sold and engineered the job.

Plumbing Fixture Group To Aid Government Allocation Program

WASHINGTON, D. C.—Faced with a shortage of pig iron needed for plumbing fixtures and an expected acute shortage of the fixtures themselves, a plumbing fixture industry committee has voted to cooperate in the government's voluntary program to provide pig iron for the industry under the housing program.



RUGGED and RELIABLE!



BULLETIN 709SP

Single Phase Across-the-Line Motor Starters

Do you need a single phase starter that can take it? The Bulletin 709SP solenoid starter is your answer. Its double break, silver alloy contacts never need cleaning or dressing. Its

simple, efficient mechanism will hold in during line voltage fluctuations. A starter you can install and forget! Write today. Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wisconsin.



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SUMMER and SPRING

WINTER and FALL

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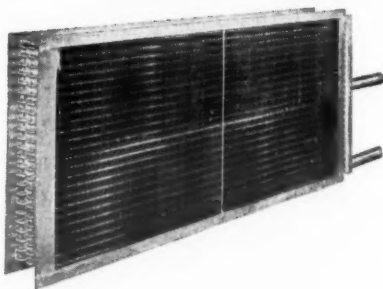
GOVERNNAIR

ALL YEAR 'ROUND

Your sales don't have to "drop off" at the end of every summer season. Sell Governair All year 'round and keep that sales curve "up" during slack periods.

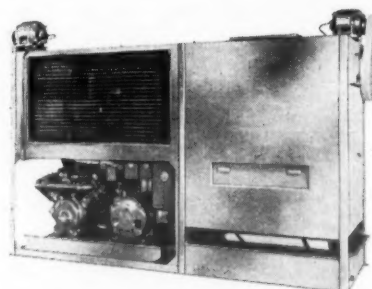
Sell blast coils for converting our packaged unit to year 'round air conditioning. Sell completely packaged air conditioners to those who didn't order early enough this season. Sell unit coolers for efficient refrigeration.

Yes, keep your sales average HIGH — sell Governair All year 'round. Clip out coupon below and mail today.



BLAST COILS FOR YEAR 'ROUND HEATING & COOLING

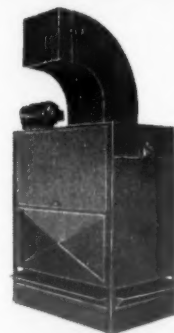
Governair blast coils for efficient heating or cooling take the lead for year 'round business! Smart operators are selling these to convert our completely packaged air conditioners for year 'round comfort. Others use them for cooling or heating in numerous other ways. Made of copper tubing and copper fins spaced according to temperatures involved. All joints are securely welded and a thorough pressure test is made before each unit's delivery. Check into your potential sales of these versatile coils right away! Sell Governair all year 'round.



COMPLETELY PACKAGED AIR CONDITIONERS FOR YEAR 'ROUND COMFORT

This is the famous Governair completely packaged air conditioner which has made air conditioning history! Expertly designed for efficient operation, easy installation and high quality performance this air conditioning unit is known as the greatest VALUE IN THE FIELD!

It can be quickly utilized for year-round air conditioning to provide clean, warm air by connecting a Governair heating coil to the system. Owners of the unit are your immediate prospects for fall and winter business. Sell them also to those "hot" prospects who didn't order early enough this year. Sell Governair all year 'round!



UNIT COOLERS FOR YEAR 'ROUND REFRIGERATION

The Governair floor type unit cooler needs no introduction! It is compactly designed for operation in cold storage rooms to produce temperatures below or above 33 degrees. The units may be furnished with either vertical or horizontal air delivery as required. Available in a wide range of sizes to provide air delivery from 1,600 to 20,000 CFM.

Particularly desirable for its efficiency and mobility, this unit was highly praised and its performance was proven in world-wide use by the Army and Navy during the war. It always does a capable year-round refrigeration job, so it's a "natural" sales builder for year-round business. Sell Governair all year 'round!

Double Feature!

TODAY AND EVERY DAY

THAWZONE
PATENTED
THE PIONEER FLUID DEHYDRANT

THAWZONE, the moving dehydrant, circulates and searches out moisture, destroying it chemically. For new and reconditioned units, as well as old.

TRACE
REFRIGERANT LEAK DETECTOR

TRACE is a highly effective refrigerant leak detector. Its stable, red color reveals leaks promptly in old or new systems.

HIGHSIDE CHEMICALS CO.
195 VERONA AVE. NEWARK 4, N. J.

GOVERNNAIR

GOVERNNAIR CORPORATION
513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.

CLIP THIS COUPON AND MAIL TODAY

Dept. H
GOVERNNAIR CORPORATION
513 N. Blackwelder, Oklahoma City, Okla.

We want to keep sales high during slack periods. Without obligation, please send free literature as checked so that we may sell Governair all year 'round!

☐ Governair Blast Coils ☐ Governair Completely Packaged Air Conditioners
☐ Governair Unit Coolers

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COMPANY NAME _____

STREET ADDRESS _____

CITY AND STATE _____

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

Electrimatic
Valves, Driers, Strainers,
Charging Lines, Quick Couplers,
Forged Flare Nuts and Fittings
Ask Your Wholesaler
Electrimatic
2100 Indiana Ave. • Chicago 16, Illinois
Canada—2025 Addington Ave., Montreal

NIAGARA
AEROPASS* CONDENSER
... increases refrigeration plant capacity;
saves power and water.
Patented features: "duo-pass" coil keeps
condenser tubes free from scale; "oilout"
constantly cleans oil and dirt from the refrigerant.
"Balanced Wet Bulb Control" maintains minimum practical compressor head pressure.
NIAGARA BLOWER COMPANY
30 Years of Service in Air Engineering
405 Lexington Ave. New York 17, N. Y.
*Trade-mark registered

KRACK
ENGINEERED
UNIT COOLERS
FIN COILS
AIR CONDITIONING
Refrigeration Appliances, Inc.
923 W. Lake St., Chicago 7, Ill.

The
KEY to AIR CONDITIONING
One of a series from
by James J. LaSalvia

Cooling Load (Cont.)

These problems show very clearly how the refrigeration load may vary. It is always good practice to use various appurtenances for windows and to insulate roofs to arrive at the lowest amount of refrigeration.

It is much better to insulate roofs than to use water sprays. Never insulate roof and in addition apply water sprays, as nothing will be gained.

In such cases where the conditioned space is between buildings so that the sun shines on roof no longer than one hour, the roof solar heat can be neglected.

SHOW WINDOWS

Where there are show windows and these show windows have tight enclosures to the main space, figure 120° F. in the enclosure and use U factor of the type of enclosure and follow through same as normal transmission. In this case glass and wall in front of enclosure do not have to be considered, and no sun effect should be figured.

HEAT GIVEN OFF BY OCCUPANTS

All human beings give off heat in the form of sensible and latent heat.

The rate of heat given off by human beings varies greatly depending upon the kind of activity. Heat given off when a person is exercising violently may be five times as great as when a person is reclining and at rest.

The human body has a temperature of 98.6° F. When a human being is exposed to a temperature above 98.6° F., it will give off heat in the form of latent heat only. When exposed to temperatures below 60° F., it will give off heat in the form of sensible heat only. Between 60° and 98.6° F., the body will give off heat in the form of sensible and latent heat approximately in a direct ratio from all sensible to all latent according to surrounding temperature.

The average person is taken as having a surface of 20 sq. ft.

The basic factor for dissipation of

heat from the human body is metabolism. Table 7 shows the relation between metabolic rate and activity as compiled by the A.S.H.V.E. Research Laboratory.

In order to make Table 7 usable at temperatures other than 79° F.,

Table 8 has been developed. Table 8 is for 76°, 80°, and 84° F., where the biggest percentage of the jobs will be figured. For other temperatures between these figures interpolate.

(To Be Continued)

Table 7—Relation Between Metabolic Rate and Activity

Activity	Hourly Metabolic Rate for Avg. Person or Total Heat Dissipated B.t.u./Hr.	Hourly Sensible Heat Dissipated, at 79° F. B.t.u./Hr.	Hourly Latent Heat Dissipated, at 79° F. B.t.u./Hr.	Moisture Dis- sipated per Hour	
				Grains	Pounds
Basal	291	145	145	978	0.140
Seated at Rest	384	225	159	1,072	0.153
Reading Aloud (seated)	420	225	195	1,315	0.188
Standing at Rest	431	225	206	1,389	0.193
Hand Sewing (seated)	441	225	216	1,457	0.203
Knitting 23 stitches per minute on sweater	462	225	237	1,598	0.223
Dressing and Undressing...	468	225	243	1,639	0.234
Tailor	482	225	257	1,733	0.243
Singing	486	225	261	1,760	0.251
Office Worker					
Moderately Active	490	225	265	1,787	0.255
Light Work Standing	549	225	324	2,185	0.312
Typewriting Rapidly	558	225	333	2,246	0.321
Ironing with 5-lb. Iron.....	570	225	345	2,326	0.332
Dishwashing—Plates, Bowls, Cups, Saucers	600	225	375	2,529	0.361
Clerk Moderately Active					
Standing at Counter	600	225	375	2,529	0.361
Book Binder	626	225	401	2,704	0.386
Shoemaker	661	225	436	2,940	0.420
Sweeping Bare Floor					
38 Strokes per min.	672	229	443	2,987	0.427
Pool Player	680	230	450	3,055	0.434
Walking 2 m.p.h., Light Dancing	761	250	511	3,446	0.492
Light Metal Worker (at bench)	862	277	585	3,945	0.564
Painter of Furniture (at bench)	876	280	596	4,019	0.574
Carpenter	954	307	647	4,363	0.623
Restaurant Serving	1,000	325	675	4,552	0.650
Pulling Weight	1,041	335	708	4,774	0.682
Walking 3 m.p.h.	1,050	339	711	4,795	0.685
Walking 4 m.p.h., Active					
Dancing, Roller Skating..	1,390	452	938	6,325	0.904
Walking Down Stairs.....	1,444	467	977	6,588	0.941
Stone Mason	1,490	485	1,005	6,777	0.968
Bowling	1,500	490	1,010	6,811	0.973
Man Sawing Wood	1,800	590	1,210	8,160	1.166
Swimming	1,986	....	....	....	....
Running 5.3 m.p.h.	2,268	....	....	....	....
Walking 5 m.p.h.	2,330	....	....	....	....
Walking very fast 5.3 m.p.h.	2,580	....	....	....	....
Walking Upstairs	4,365	....	....	....	....
Maximum Exertion					
Different People	3,000 to 4,800				

These metabolic rates were compiled by the A.S.H.V.E. Research Laboratory from actual tests, from other authoritative sources, and from estimates based upon various considerations.

Table 8—Sensible and Latent Heat Liberated from Human Beings In B.t.u. per Hour

Applications	Total Heat	Room Temperature			
		76°	80°	84°	
Seated at Rest					
Theater, Dining, Reading....	400	260	140	220	180
Standing at Rest					
Inactive Clerk, Tailor, Knitting, Shopper	460	260	200	220	240
Slightly Active—Stenographer..	520	260	260	220	300
Semi-moderately Active					
Active Clerk	580	280	300	230	350
Moderately Active					
Waiter, Pool Player, Very Active Clerk	680	320	360	250	430
Active—Bowling, Dancing	800	360	440	280	520
Semi-heavy Work					
Musician, Very Busy Waiter..	1,000	420	580	320	680
Heavy Work—Production Line					
Worker, Man Sawing Wood, Stone Cutter	1,500	550	950	450	1,050

The above division of sensible and latent heat represents the liberation from one person only.

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The Leader and
the Largest
in Commercial
Refrigeration

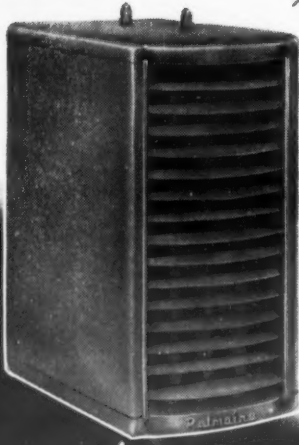


Owners and
Operators of the
Famous VICTOR Ex-
perimental Farms

VICTOR PRODUCTS CORPORATION
HAGERSTOWN, MARYLAND

BUILD PRESTIGE...PROFITS!
with the prestige and quality of

Palmaire SUSPENDED HEATERS
SNO-BREZE EVAPORATIVE COOLERS
Guaranteed
Certified air delivery.



**AND "PEP" UP
YOUR
YEAR 'ROUND
SALES PICTURE**

**PRODUCT
LEADERSHIP**

**EXPANDING
MARKETS**

**PROGRESSIVE
BACKING**

WITH its modern equipment and production techniques, the Palmer plant is looked upon as one of the most efficient plants in the nation. This fact, plus 39 years of manufacturing skill, constant energetic research and development assures Palmaire heater and Sno-Breze cooler leadership at all times.

NEW residential, commercial and government buildings. You completely cover this growing market with Palmaire heater and Sno-Breze cooler models that fully meet the most exacting requirements. Add the replacement buyers and you really have expanding markets plus — a tremendous potential!

COMPANY PAID regional and national advertising, seasonal promotions, newspaper mat service, copy ideas, demonstrator units, folders, catalog sheets, point of sale displays. Yes, progressive backing is right, and these progressive energetic sales and advertising policies give that "added touch" to the Palmer picture of "Sales Promotion Perfection"

NOW, HOW ABOUT YOU? There are real volume sales — profits waiting for qualified distributors and dealers. Mail coupon, or write today for literature and sales details.

**FREIGHT
PREPAID**

to destination on car and
split carload shipments of
Palmaire heaters.



MANUFACTURING CORP. Phoenix, Ariz. Dept. N-5

We're interested in:

a dealer _____ distributor _____ sales agreement.

Name _____

Address _____

City _____

Zone _____

State _____

Franchise Changes Suggested by Dealers--

(Concluded from Page 1, Column 5)

"We still have with us, and more acutely so, such evils as price-cutting, special deals, grey markets, over-franchising, high costs, and a companion high dealer mortality rate."

"Now, more than ever, it is apparent there is a need for an ample market for every dealer and a fully competent dealer for every market."

Illustrative of the extent to which over-franchising has been practiced, Kovach pointed to a survey of dealers in a town of 125,000 population. Here, he said, it was found that one appliance manufacturer had 46 individual outlets for a line of freezer and refrigeration products.

Another manufacturer of laundry equipment had 45 outlets. There were 37 dealers for a line of water heaters, and 26 for one line of ranges.

One Dealer per 50,000

He said his committee recommended that "manufacturers limit the number of franchised dealers to one dealer for each 50,000 population. We further recommend that before a new dealer is appointed, existing dealers be advised and consulted."

Kovach's committee also suggested that "some exceptionally good franchises would be better franchises if properly policed by distributors."

Kovach noted that to make a franchise valuable, the manufacturer, distributor, and dealer must "work together in close harmony, with each having full understanding as to the other's individual responsibility."

During a panel discussion on this subject, several manufacturers agreed that it was not what is written that gives the franchise its value, but rather the spirit existing between the manufacturer, distributor, and dealer.

Davidson, an appliance dealer from Miami, Fla., took a very serious view of the grey market situation in appliances. He stated:

"We, the franchised retailers, distributors, and manufacturers, are beginning to realize that this condition, if it is not corrected, can seriously impair, perhaps even destroy, our present method of distribution."

To Beat the Grey Market

His program, which he considered to be "a start in the right direction" contained these points:

1. Guarantees should be changed so as to be good only if the appliance is sold by a franchised dealer and with factory serial numbers on cabinet and mechanism. Warranties should also be clearer on what is guaranteed.

2. Dealers should supply their customers with a title to the appliance purchased. If the appliance is shipped outside the dealer's servicing area, the title would contain a statement signed by the customer acknowledging that the customer forfeits free labor during the warranty period.

3. Manufacturers should announce changes in warranties or guarantees in national advertising.

4. Each dealer or distributor who sells for delivery outside his servicing area should have to explain the loss of free service during the warranty period.

5. Penalties should be provided for violations of the rules.

6. Contractors or builders should have to sign statements that they will use purchased appliances only in a specific building and will give the seller the right to buy back appliances that cannot be so used.

7. If a dealer reports serial numbers of grey market appliances sold in his area and they result in penalties against the offending distributor or dealer, reporting dealer should get an extra allotment of appliances for his services.

8. Franchises should be cancelled without usual notice if dealer makes a second grey market sale.

9. Manufacturers, distributors, and retailers should unite to persuade newspapers and radio stations not to accept brand name advertising from unfranchised dealers.

Kelley, in his talk on selling major appliances, told the conference that "with the exception of some brands of refrigerators, all major appliances in most parts of the country are already in a market situation where they must be sold."

However, he declared, in the past 7½ years, real selling has become almost a lost art. He defined a salesman as "a person who has sold something that the purchaser did not know he needed or wanted." He said that few salesmen today had ever sold

anything, in the light of this definition.

"Gentlemen," he asserted, "it behooves us to take inventory of the status of our sales facility. We have a greatly improved and expanded physical sales facility in our newly built, newly decorated, newly located, and newly arranged display floors, but when we attempt to honestly evaluate both the quantity and quality of the manpower ingredient of our sales facility, we must admit that we are far short of the mark."

He suggested that dealers increase sales organizations, to normal market operating strength, get the best lines of appliances available, immediately establish an aggressive sales program, and take full advantage of all available aid from utilities, electrical leagues, and suppliers.

At one manufacturer-dealer panel discussion, dealers asked the manufacturers for their advice on control of inventories of appliances and parts against the possibilities of materials shortages, production, and other controls.

Some manufacturers expressed optimism and anticipated a good business through the remainder of the year, despite continuing materials shortages. Others were doubtful that they could maintain present production schedules.

The Marshall Plan, the manufacturers agreed, would have little effect on the appliance business. The dealer that can sell, they felt, will have a good year despite slow deliveries on some appliances.

PROVISIONS FOR FRANCHISE IMPROVEMENT

(As Recommended by Nera)

1. The Company and Dealer mutually covenant and agree that this Franchise Agreement should be binding upon each of them in all its particulars. If either party shall willfully violate any of the covenants herein or any of the duties imposed upon it by this agreement, such willful violation shall entitle the other party to terminate this agreement, provided that the party desiring to terminate for such cause shall have given the offending party at least thirty (30) days' written notice if the franchise has been in force not more than two (2) years, sixty (60) days' written notice if the franchise has been in force from two (2) to three (3) years, ninety (90) days' written notice if the franchise has been in force from three (3) to five (5) years, and six (6) months' written notice if the franchise has been in force more than five (5) years. Such written notice shall specify the particulars wherein it is claimed there has been a violation. If, at the end of such time the party notified has not remedied the cause of complaint, then the termination of this agreement shall be deemed complete.

2. The Company agrees that it will not ship on consignment or in any manner sell any of the products enumerated herein to any person or agent unless said person or agent shall have applied for and been issued a Retail Franchise; nor shall it ship on consignment or in any manner sell such products to any franchised Dealer for resale in other areas than the area in which the said Dealer is franchised to operate under the terms of its Franchise Agreement. If any sale of said products is made by the Company to any person or agent which is not so franchised or to any franchised Dealer for resale outside the area in which the latter is franchised to operate, the Company shall pay to the duly franchised Dealer in the area in which said sale occurs the full mark-up on the products so sold when the said Dealer discovers the sale.

3. The Company agrees that it will not issue any franchise to any Dealer unless said Dealer shall maintain an adequate service department or, in lieu thereof, shall have contracted with outside agents to furnish the necessary service facilities in the franchised area.

4. The Dealer agrees to carry on hand at all times a reasonable stock of replacement parts for the products enumerated herein, as measured by the volume of business transacted.

The Company, on its part, agrees to carry on hand at all times a sufficient stock of replacement parts to meet the requirements of the duly franchised Dealer or Dealers in the franchised area.

5. The Dealer will provide facilities for rendering service on products sold by it or sold from outside the franchised area into the area and will assume all responsibilities for carrying out the manufacturer's guarantee or warranty thereon and for maintaining such products in good operating condition as judged by the standards of the Company. The Dealer shall investigate all requests under manufacturer's guarantees for free replacement parts which appear in any way to be abnormal, with a view to (1) avoiding abuse of manufacturer's guarantees by the Dealer's customers, and (2) advising the Company of any abnormal defects in the products which may require correction in manufacture. The Dealer will not order any free replacement parts under manufacturer's guarantee which it is not satisfied are proper under the guarantees.

Since the servicing of any products (other than small appliances, fans, vacuum cleaners, electric bed coverings, and milk coolers) sold by the Dealer outside the franchised area will of necessity have to be provided for by the Company, and since the suggested retail price therefore includes provision for the cost of such servicing during the period of the guarantee, the Dealer will pay to the Com-

pany, in respect of any such products (other than small appliances, fans, vacuum cleaners, electric bed coverings, and milk coolers) sold by it outside the franchised area, an amount equal to fifteen per cent (15%) of the suggested retail price of such products to cover the cost of such servicing.

6. The Company agrees to furnish to the Dealer at least ninety (90) days' notice prior to the announcement of any of the following:

(a) New models of the enumerated products;

(b) Price changes relating to either old or new models of the enumerated products; and the Company further agrees to give to the Dealer a reasonable opportunity to purchase factory overstock and to credit the Dealer for the stock of the enumerated products held by the Dealer at the time the price change goes into effect or the new models are ready for delivery.

7. The Company agrees that it will maintain a program of supervision and instruction for the benefit of the Dealer for the purpose of advising, assisting, and instructing the Dealer in the use of the most effective merchandising technique, advertising, and advertising aids, which are acceptable to the Dealers.

8. The Dealer agrees that it will purchase and carry on hand at all times an adequate display of stock of the products enumerated herein, as measured by the customary trade of the said Dealer, if such merchandise is available, but the Dealer can only buy the type of products enumerated in the franchise.

9. The Dealer agrees that, in the event of the cancellation or termination of this Franchise Agreement or in the event that said Dealer for any reason ceases to do business, the Company shall have, for a period of fifteen (15) days from and after the date of said cancellation, termination, or cessation of business, the option to repurchase any or all of the new, used, or repossessed models of the enumerated products owned by the Dealer on that date at the prices currently prevailing for such products. The Dealer agrees not to sell or offer for sale, except at regular retail prices, any of the enumerated products to anyone else during such option period without written permission of the Company and, if requested by the Company, to assemble at the Dealer's place of business all the models of the enumerated products owned by him on that date.



ENGINEERED
REFRIGERANT
CONTROLS

ALCO VALVE CO.
ST. LOUIS

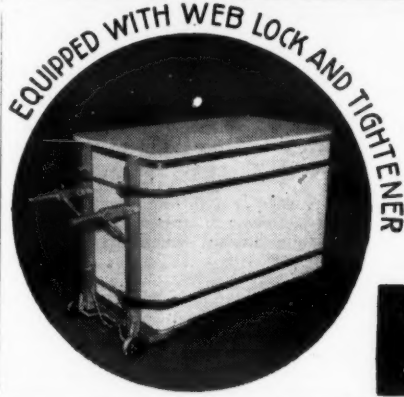
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Even the handsome, engineered good looks of Larkin refrigeration products contribute to their fine performance. The originator of the Cross Fin Coil also offers you matchless quality in Air Conditioning Units—Evaporative Condensers—Instantaneous Water Coolers—Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—and complete equipment for commercial and industrial refrigeration.



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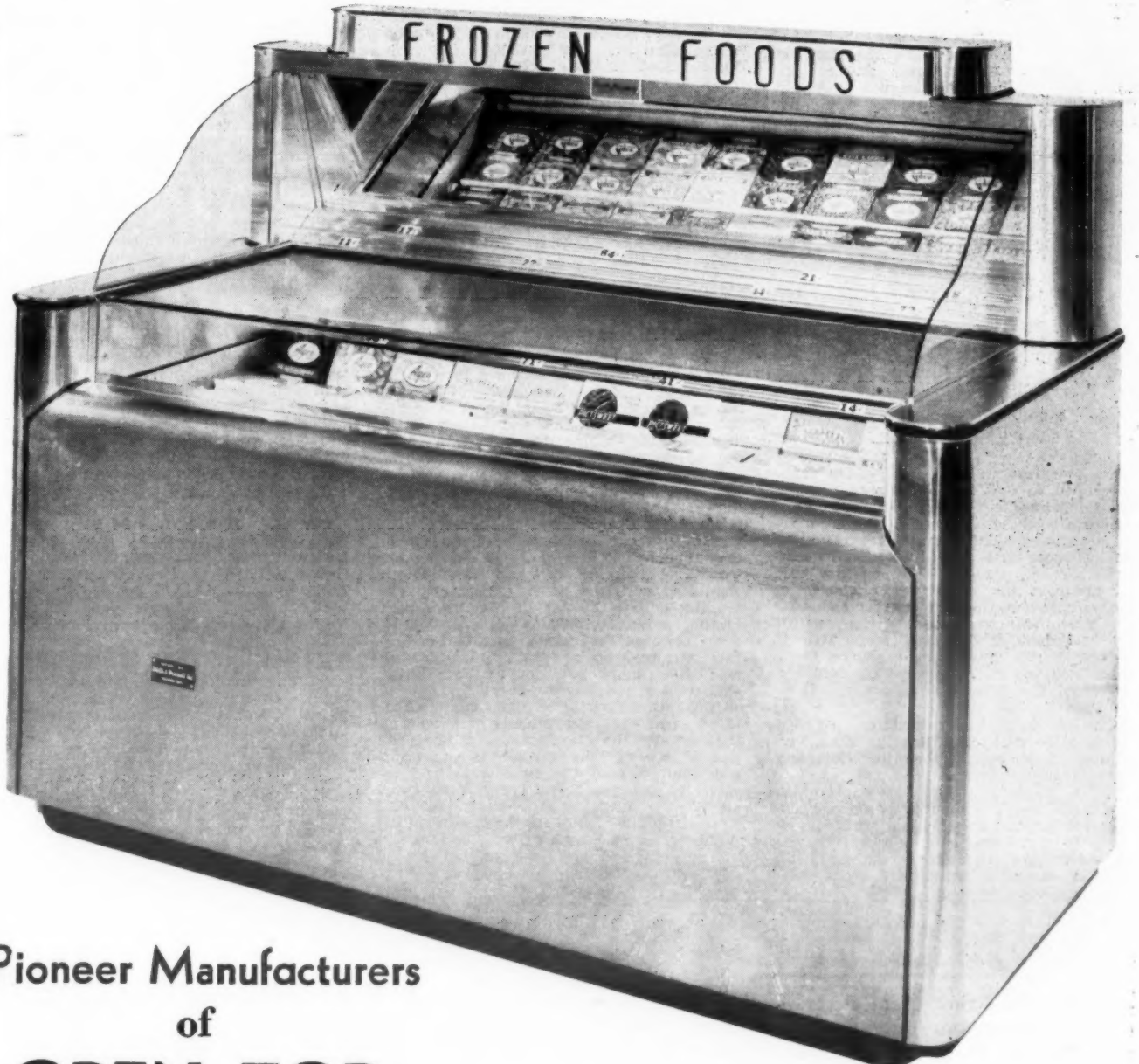
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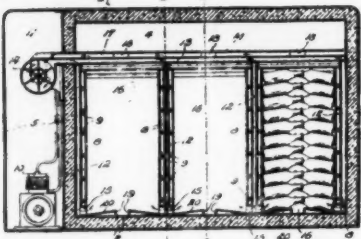
Wells and Brunell Manufacturing Co., Inc.

Factory: 218 Puyallup Avenue, P. O. Box 1555, Tacoma, Washington • MAIn 3828
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PATENTS

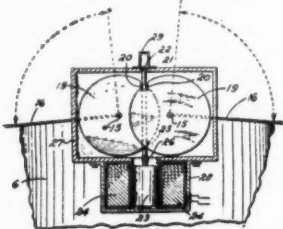
Weeks of April 6 & 13

2,439,261. FORCED AIR CIRCULATION COOLER FOR BOTTLED BEVERAGES. Clarence F. Munshower, Columbus, Ohio, assignor to Colbar, Inc., Columbus, Ohio.



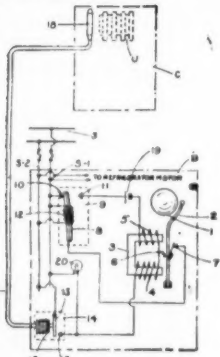
1. A cooler for bottled beverages comprising a cabinet, a plurality of vertically arranged relatively spaced refrigerating panels stationarily mounted in said cabinet, said panels being relatively spaced to form air passages, a duct for delivering air to each of said passages for downward circulation therethrough and upward circulation across bottles arranged in contact with said panels, a return duct for air travel, and motor actuated means for effecting forced travel of air through said ducts and passages.

2,439,271. VENTILATOR. James B. Shaver, University Heights, Ohio.



1. A ventilator comprising a tubular casing extending substantially vertically, a motor driven blower therein arranged to discharge upwardly, a closure pivoted to said casing and overlying the upper end thereof, a stop limiting the upward motion of the closure so that its center of gravity cannot reach a position above the axis of the pivot, locking means associated with the closure and arranged to lock the closure in its lowermost position, said locking means comprising a disc fixed with relation to the closure and having a notch, a locking bolt movable into and out of the notch, and electro-magnetic means associated with the bolt and energizing concurrently with the motor of said blower.

2,439,331. WARNING SIGNAL SYSTEM FOR REFRIGERATORS. Roscoe D. Bean, Red Bank, N. J., assignor to Signal Engineering & Manufacturing Company, New York, N. Y.

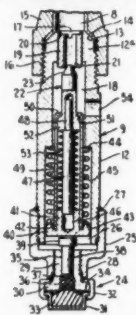


1. A warning signal system for refrigerators and the like comprising in combination, an electrically operated signal, separate sources of electrical power, a refrigerating device operable from one of said sources and providing a refrigerating chamber, means for operating said signal from the same power source as the refrigerating device, in response to a predetermined temperature rise within the chamber, and means responsive to failure of the first named source for a predetermined period to operate said signal from the other source.

2,439,336. THERMOSTATIC VALVE. Earnest J. Dillman, Detroit, Mich., assignor to Detroit Lubricator Company, Detroit, Mich.

1. A thermostatic valve comprising a tubular casing member having a valve chamber and having an end wall and an opposite open end, said end wall having a longitudinal opening therethrough into said chamber, a valve seat member in

said opening and providing an inlet valve port into said chamber, a valve member having a conical end portion controlling flow through said port and engageable with said seat member to stop flow, said valve member having a surrounding shoulder facing said port and having a longitudinal central cylindrical recess facing away from said port, a cap member closing and sealed to said open casing member and having a central

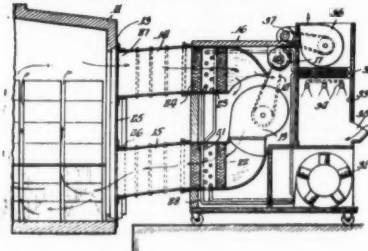


aperture therethrough, a thermostatic power element casing having a tubular extension secured in and closing said central aperture, a piston guided in said tubular extension, temperature responsive material in said power element casing and operable on temperature increase to move said piston, a guide member seating on said piston and guided by and in said casing member, said guide member having a central cylindrical recess aligned with and facing said valve member recess, a guide rod supported at one end in said valve member recess and having its other end reciprocally guided in said guide member recess, a sleeve member secured at one end to said guide member and reciprocally receiving said valve member, said sleeve member having an internal flange receiving said valve member shoulder, a lost motion force transmitting spring within said sleeve member and held under compression between said guide member and said valve member against said sleeve member flange, said casing member having an internal annular shoulder facing said open casing member end and having an outlet port through its side wall between said internal shoulder and said inlet port, and a spring surrounding said sleeve member and held under compression between said internal shoulder and said guide member to oppose movement of said valve member by said responsive material.

AVAILABLE FOR LICENSING OR SALE

Pat. 2,432,354. HOLLOW BUILDING WALL. Patented Dec. 9, 1947. This invention relates to a hollow building wall for the circulation of air therethrough. (Owner) Clyde Temple, Redford Station, Box 31, Tulsa, Okla. Groups 32-51. Reg. No. 9,447.

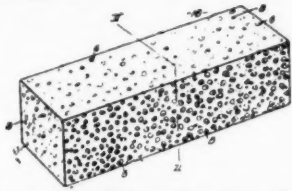
2,439,487. METHOD OF PRECOOLING THE LADING OF REFRIGERATOR CARS COMPRISING THE REVERSAL OF AIR FLOW. Frank J. Reilly, Daytona Beach, Fla., assignor to one-third to Clarence J. Loftis, Chicago, Ill.



1. A method of precooling a load within the usual side-door refrigerator car having side doors midway the ends thereof to a predetermined and substantially uniform temperature throughout the load during the initial precooling period without over-cooling any appreciable part of the load, comprising through lading loading of the car with crates of perishable products and arranging said crates substantially the entire length of the car in the upper part thereof so as to provide for a relatively shallow air chamber as compared with the depth of the load extending across the car in the lower part of the load near the floor adjacent to the door opening, said chamber being further arranged in a substantial line with said side door openings, and arranging said crates to provide a multiplicity of vertical air passages in open communication with said air chamber extending throughout the load and around the crates, cooling the air at substantially less than that of the perishable load by forcibly and rapidly driving streams of air so cooled through the side door into said chamber, thence through the multiplicity of air passages formed in the load and forcibly drawing the air out of the car, and intermittently reversing during

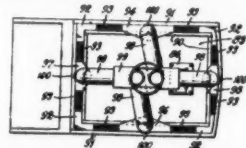
the precooling operation the direction of travel of the streams of precooled air through the load and the multiplicity of air passages whereby the pattern of the precooled air distribution is intermittently changed, so that those portions of the load not being effectively contacted in one direction will be contacted to a greater degree upon the reversal of the air current.

2,439,538. DEODORIZING COMPOSITION OF MATTER FOR FOOD STORAGE COMPARTMENTS. C. J. Burgess, Liberty, Mo.



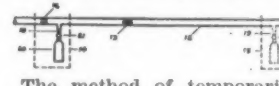
1. A composition of matter of the character described consisting of one part by weight of activated carbon, serving as an absorbing agent; four parts Portland cement, serving as a binder for the mass; two parts calcium carbonate, serving as a filler; two parts granular, calcined vermiculite, serving as means for forming a multiplicity of ramified interconnected cavities throughout the mass, there being a relatively greater concentration of activated carbon around the granules of calcined vermiculite than elsewhere in said mass.

2,439,601. INSULATING CONFINED SPACES. Clark C. Heritage, Cloquet, Minn., assignor to Wood Conversion Company, St. Paul, Minn.



1. In depositing particles of insulating material into the space defined and confined by walls including the walls of a refrigerator cabinet and of a food compartment mounted therein, and including removable closure means over said space at the door opening of the refrigerator, said closure means having a plurality of introductory inlets opening into said space including one to each panel-form space at the door opening, of which walls the space confining surfaces include a major portion which is substantially resistant to the passage of gas and one or more remaining portions, each in the form of screening means with foramina relatively minute compared with said one or more inlets, for venting gas from said space and for retaining said particles in the space, the method which comprises, suspending in a moving gas, particles of insulating material which pack to a consolidated body that is a gas-filtering body at an insulating density of the so-packed particles; introducing the resulting moving gaseous suspension into said space by conducting the suspension to and through said introductory inlets; simultaneously venting said gas from said space through said screening means, and thereby filtering said vented gas from particles, thereby depositing and packing particles to form a growing gas-filtered mass thereof in corresponding portions of said space over and extending away from said screening means; simultaneously maintaining in the remaining portion of said space a condition of turbulence of said gaseous particle-suspension by maintaining a high and sufficient velocity therein by introducing said suspension whereby the turbulence causes deposition and packing of particles in margins of the turbulent space; continuing said introduction, said maintenance of turbulence, and said venting of said gas through said screening means and also through said growing mass at least until a body of said particles begins to form in each of said inlets and said space is completely packed with said particles.

2,439,592. METHOD OF TEMPORARILY REPAIRING ELECTRIC CABLES DAMAGED BY MOISTURE. Johan Valdemar Wallgren and Dag Viktor Ljuslin Lindstrom, Stockholm, Sweden.



1. The method of temporarily restoring to normal operating value the insulating resistance of conductors insulated with fibrous material in electric metal-sheathed cables out of order due to moisture having penetrated into said fibrous material through a leak in the cable sheath, which method consists in removing the outside cable sheath from the damaged part of the cable and directly exposing the said moistened fibrous insulating material to a solid refrigerant of a temperature substantially below the freezing point of the penetrated moisture.

DESIGNS

149,240. DESIGN FOR A REFRIGERATOR. Nicholas Achs, Detroit, Mich.



The ornamental design for a refrigerator, as shown and described.

149,257. DESIGN FOR A WATER COOLER OR SIMILAR ARTICLE. James J. Corey, Elmhurst, N. Y.



The ornamental design for a water cooler or similar article, substantially as shown.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion 50 words or under. 5¢ ea. additional word.
RATES for all other classifications \$5.00 per insertion 50 words or under. 10¢ ea. additional word.
ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

POSITIONS WANTED

THOROUGH KNOWLEDGE refrigeration problems, twelve years experience with excellent background in engineering, design, laboratory research and field applications. Specialized knowledge of evaporators, condensing units and controls in connection with "Freon-12," Ammonia, "Freon-22" and Methyl Chloride. Capable of full responsibility for product improvement or development program. BOX 2847 Air Conditioning & Refrigeration News.

MECHANICAL ENGINEER, 30. Four years experience (supervisory capacity) specialized problems air conditioning, refrigeration, and heat transfer research, development, design and testing. Also six years general business experience prior to professional degree. Excellent references. Desire new connection with promising future in consultant, manufacturing or sales-engineering fields. California only. BOX 2866, Air Conditioning & Refrigeration News.

AVAILABLE AUGUST 1st. Application engineer 14 years, executive position past 6 years, in retail heating and cooling business. Experience all phases of heating, cooling and ventilating. Prefer Florida. Sober and energetic. Free to travel. Earning record to \$12,000. Consider any proposal based on salary and commission or percentage of profit in \$10,000 class and up. Reply to BOX 2868, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

WANTED—ONE commercial refrigeration and air conditioning installation and service man. Prefer one who is allergic to snow, sleet and mud. Must be fully trained. Write or wire ENGLE ELECTRIC COMPANY, Lakeland, Fla.

WANTED COMPETENT refrigeration service man to service household and commercial refrigeration and deep freezers. Salary commensurate with ability. Write LAMBERT ELECTRIC COMPANY, Hay Springs, Nebraska.

WANTED: COMMERCIAL air conditioning salesman. Must be able to estimate and lay out his own work. Preferably one who has had Frigidaire experience. Remuneration: Straight commission or share of profits. Write Joseph Steiert, Salesmanager, McFARLANES, INC., Fort Lauderdale, Florida.

COMMERCIAL REFRIGERATION salesmen—Salesmen who are now contacting commercial refrigeration dealers in Virginia, West Virginia, Maryland, Delaware and Washington, D. C. but no selling commercial refrigeration equipment to represent us selling a first class diversified line of equipment as an allied line. Contact PUBLIC SERVICE COMPANY, 605 West North Avenue, Baltimore 17, Maryland. Phone Lafayette 0011.

WANTED: SALESMAN to contact dealers by long established Iowa jobber selling to refrigeration and electrical trade. REPUBLIC ELECTRIC COMPANY, Davenport, Iowa.

MANUFACTURERS REPRESENTATIVE wanted to handle a complete quality line of air conditioning equipment for South and Southwestern States. TEMP-CONTROL, INC., 208-210 E. State St., Peoria, Illinois.

SERVICE MANAGER: Established distributor of domestic home appliances in Northern Illinois offers an opportunity to a man with the necessary qualifications to direct an outside service operation. In reply state age, experience and other qualifications, and salary expected. BOX 2849, Air Conditioning & Refrigeration News.

SALES ENGINEER, college graduate with minimum five years experience in air conditioning and refrigeration to contact manufacturers, wholesalers, dealers and contractors for well-established control manufacturer. Must travel Ohio, Eastern Pennsylvania, West Virginia. Salary and commission rate highest in industry. BOX 2858 Air Conditioning & Refrigeration News.

SALES ENGINEER wanted—Refrigerant controls and valves. New England Territory. Contacting manufacturers, dealers and jobbers. Some experience necessary. Age: about 30. BOX 2862 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SEALED UNITS rebuilt and exchanged. Prompt service on Coldsport (sealed & semi-sealed), Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Mich.

SACRIFICE 72-MODEL #55-501 Copeland Compressor Units. 2 cylinder Compressor—1 1/4" bore—3/4" stroke—high back pressure, without condenser, but with 1/2 H.P., 115 Volt, 60 cycle, single phase motors with relays and capacitors, original cartons. List price \$160.00; Sacrifice \$50.00 each. CONSOLIDATED CONDITIONING CORP., 26 West 47th St., New York 19, N. Y.

SECOND HAND refrigerators, all makes and models in operating condition for immediate delivery. HANTOBER & CO., INC., 200 East Church Lane, Philadelphia 44, Pa.

AMANA WALK-IN 123 cu. ft. 8'x4'x6'10" high freezer-coolers. Self contained 1/2 HP Universal compressor, blower coil, 4-Dole

freezer plates, factory assembled, tested & charged with "F-12." All new created, offered subject to prior sale. Sacrifice \$550.00 f.o.b. MASON, BROWN & CO., VILLE, INC., 1529 Walnut Street, Philadelphia 2, Pa.

5 HP MILLS & Par condensing unit \$385, 5 HP Typhoon weathermakers \$395, 1 HP Amco weathermakers \$175. The following less motors: 50 HP Schnacke \$995, 1/2 HP Universal \$49, 1/4 & 1/2 HP Copeland \$29, 1/2 HP Universal sealed \$79. Westinghouse 2 1/2 ton used self-contained Air Conditioner \$395. Some as is used Servel and Frigidaire refrigerators. PILGRIM REFRIGERATION CO., 48-20 43rd Avenue, L. I. City 4, N. Y.

SEALED CROSLLEY terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. No special tools needed. Stops leaky terminals on "F-12" units. Part #1020 short model—for short Croslley terminals ("F-12" compressors with 4 mounting legs.) Part #1020 long model—for long Croslley terminals ("F-12" compressors with 3 mounting legs). \$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

HERMETIC UNIVERSAL Cooler units—Subject to prior sale. 1/2 H.P. fan cooled—Mod 515L11 Hermetic \$52.50. 1/4 H.P. fan cooled—Mod 514L11 Hermetic \$57.50. 1/2 H.P. fan cooled—Mod 614L11 Hermetic cap. start \$59.50. 1/4 H.P. air cooled—Mod 25FL1 open \$53.50. 1/2 H.P. air cooled—Mod TA33FS1 open \$62.50. 1/2 H.P. air cooled—Mod DD33 FL1 open \$64.50. 1/2 H.P. air cooled—Mod DD50FL1 \$84.50. Prices quoted on lots of 6. All above units are 60 cycl—1 phase—new with factory warranty. 1/4 O.D.S. Henry packless—2 way line valves \$2.00. 1/2" or 3/4" Flare Kerotest—2 way line valves packed with Hex Cap. \$3.85. Heavy duty Mueller "Freon" relief valves 1/2" solder \$2.00. Filter driers—silica gel—1/4 flare 1 1/4" x 6 1/4" overall lots of 10 \$65. U. S. "Freon" gauge—1/2" face 30" vac—150# or 300# with corresponding temp scale and red adj. warning hand \$4.50. Genuine Frigidaire Model L00—type YL—low pressure control \$4.25. Penn dual pressure control type 1261P3 \$10.00. M. H. dual pressure controls type-P421 \$4.00. G. E. blower fan motor with 10" fan \$4.25. F.O.B. Chicago. WALTER W. STARR, 1207 George St., Chicago.

REBUILD YOUR own sealed units. Send us your burnt and stuck up heads and they will be immediately replaced from our stock. Send for our complete price list. TECHNICAL REFRIGERATION SPECIALISTS, 362 East 180th Street, Bronx 57, New York.

KAISER DISHWASHERS and garbage disposal units at distributor's cost. BOX 2867, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

AUDELS REFRIGERATION & Air Conditioning Guide. A useful manual, 1280 pages. Fully illustrated, covering the theory, construction, servicing, operation and repair of household, commercial and industrial refrigeration & air conditioning. 1001 facts. Easy to understand. Highly endorsed by service men and mechanics. Price \$4 postpaid. Money refunded if not pleased. AUDEL PUBLISHERS, 49 West 23 St., New York 10, N. Y.

APPLIANCE STORE and Record Shop, Northeast Texas county seat town, 5,000. Excellent opening good refrigeration man. Ideal for couple; wife to keep store, husband work, sell outside. Records alone more than pay overhead. Ample space, good lease, \$50 month. Inventory, purposely reduced for sale to about \$5,000, buys all. Goodwill, franchises free. GILMER APPLIANCE CENTER, Gilmer, Texas.

COMMERCIAL REFRIGERATION business handling nationally known merchandise—three trucks on the road, and doing approximately \$35,000 a year business. Inventory and building approximately \$25,000. Reason for selling—retiring from business. For further information write P. O. BOX 494, Stroudsburg, Penna.

COMMERCIAL REFRIGERATION, air conditioning, stoker & oil burner sales & service. Established 17 years. Nationally known franchises in all lines. Act now for peak summer business. Gross upwards of \$60,000.00. Northern Illinois. BOX 2855 Air Conditioning & Refrigeration News.

FOR SALE Established Midwestern air conditioning business. Selling nationally thru dealers complete line of air conditioning equipment under own brand name. Nationally advertised. Nationally known. Complete dealership setup with selling and service organization. Can be bought for asset value—Approximately \$25,000. Unusual opportunity. BOX 2857 Air Conditioning & Refrigeration News.

FOR SALE: Long established commercial refrigeration and domestic appliance business. Last year approx. \$300,000, five months this year \$128,000 sales. Real estate of apartment house, adjacent modern store, \$25,000, parts and stock inventory approx. \$50,000, trucks, cars, all postwar. Trained sales personnel, trained mechanics, located small city, northeast. Healthy vigorously promoted business. Unusual personal conditions demand sale. Cash required approx. \$40,000 would take mortgage from capable parties for balance. BOX 2853 Air Conditioning & Refrigeration News.

LONG ESTABLISHED service business for sale. Located in the wealthiest county in the country, very densely populated. Excellent service franchises, 2 trucks, lathe, welder, etc. 5 Employees. Reason for selling: plan to retire. Very reasonable. For further information write BOX 2865, Air Conditioning & Refrigeration News.

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GUN REGISTRATION BILLS THREATEN U. S. SECURITY

Detroit Lubricator Co.
New York City, New York

Editor:

Please find attached my order for a copy of "Nectar and Oolie" and also, at the same time, some comments on the Editorial appearing in the June 21 issue of AIR CONDITIONING & REFRIGERATION NEWS, "To Arms, Hunters."

I would not attempt to dispute the statement regarding the first three paragraphs, but would suggest we not be too confident about our personal armament.

Perhaps you are not aware of the fact that yearly there are "Bills" introduced to Congress and various State Legislatures endeavoring to "regulate" privately owned firearms of all kinds. Some of these "Bills" are sound and unusually sane but there are too many that smell of restraint under the guise of "Protection for the Law Abiding Citizen."

Fortunately, these phony protective bills have been thoroughly aired to the Sportsmen and Gun Lovers of the Nation through the eternal vigilance of Sporting publications and the National Rifle Association of America and have been killed in Committee. The point here is that without this vigilance on our part we might easily wake up some day with restrictive Fire Arm Legislation which can allow very unfortunate things to happen. Witness, if you please, the procedure followed in Europe by the Nazi, Russian, English, and the American forces who simply entered the City Halls of Europe, looked over the Fire Arms Registration list and Zing—the populace was disarmed—easy, wasn't it?

Should you be interested in some details as to the kind of things that have been so far unsuccessfully tried to have been foisted on us "for our own good," I refer you to the National Rifle Association of America, Washington, D. C.

J. M. STRAUSS

CONTRACTORS NEED HELP, INSTEAD OF 'BLASTING'

Harris Refrigeration Co.
2044 Massachusetts Ave.
Cambridge 40, Mass.

Editor:

Your article on June 28th under the heading of "Contractor's licensing law blasted by ACRMA" certainly calls for some comments.

I am not writing this as V. P. of the Refrigeration Service Engineers Society, where a poll of the membership might show a large number agreeing with ACRMA, nor as a recently appointed member of the NARC license committee, but as an independent contractor who believes that "Blasting" may be in order, but don't pick on the contractors.

ASRE offers the industry, the various state and municipal authorities a suggested refrigeration code which they hope can be adopted in the majority of cases. If some standardization is achieved, so that equipment specifications do not have to be changed to meet a dozen different code requirements in as many States, then a worth while contribution has been made which will benefit both the industry and the consumer.

I believe the contractors are offering a sample licensing law as one of their contributions in an effort to help all concerned. There are and will be abuses, but who will help us combat them? Let me give one example of what we are running into.

Some months ago I attended an RSES meeting in a nearby state where the speaker of the evening was the local inspector. His talk can be readily condensed as follows:

"Almost two years ago a refrigeration Code was adopted in this town, very few of you gentlemen knew about it then and some are not aware of it yet. I asked for this opportunity to tell you that on such and such a date permits must be obtained etc. and the law will be enforced. As some of you know, this is my first contact with the refrigeration industry but with your cooperation I am sure we can do a good job."

I suggest that the contractors are trying to avoid the like of this as far as licensing is concerned. If we sit back and do nothing a lot of us will wake up to find we have a code or a license, picked, written, or compiled by Heaven knows who, and given to Tom, Dick, or Harry to administer.

Do some "blasting" by all means, and ACRMA are powerful and influential enough to do a good job of it, but direct all this effort towards the root of the trouble and not at the poor guy away out on the limb. It may not be the right limb and it may even be the wrong tree, but he is trying to do something about a situation which is already hurting all concerned. How about a little help instead?

Many installations are being made and a lot of service work being done which is a disgrace to the industry, some of it represents a menace and calls for action of some sort. Many of us seem to think that licensing and a code is the answer but if anyone can prescribe a better remedy I am sure it will be welcomed by many of us.

CHARLES C. E. HARRIS

KEY PERSONNEL TO READ FREE ENTERPRISE STORY

Saginaw Steering Gear Division
General Motors Corp.
Saginaw, Mich.

Editor:

While in Detroit last week, I happened to run across an issue of the REFRIGERATION NEWS, the date of which I do not recall. In this issue was a speech by Mr. Blood of Norge which talked about the Free Enterprise System.

We are interested in obtaining two copies of this speech or two copies of that particular issue of the REFRIGERATION NEWS with the thought in mind of reprinting it for distribution to our supervisory force.

Would you please forward them to my attention and bill us the necessary amount.

J. E. GODFREY,
Personnel Director

CUBAN QUERIES GOV'T ABOUT 'CRANK-UP' MODEL

Department of Commerce
Washington 25, D. C.

Editor:

We are in receipt of a request from a wholesaling firm, located in Havana, Cuba, regarding the name and address of the manufacturer of a particular kind of domestic refrigerator which they describe as follows:

"The refrigerator is a type in which no electricity or gas is used, but instead—and that is its distinctive feature—it is moved by a system of winding it up which puts it in operation for about two days."

We contacted the Washington offices of several refrigerator manufacturers, but found no one who had heard of a refrigerator of this type. It was suggested that if anyone had information concerning this type of refrigerator, it would be your organization.

THORNTON B. MOORE

EDITOR'S NOTE: Anybody know who makes a "crank-up" refrigerator?

PUBLISHING CLIQUES IN EAST NEED CHALLENGING

Washington Engineering Co.
Spokane 8, Wash.

Editor:

Whenever the postman delivers AIR CONDITIONING & REFRIGERATION NEWS to the office, I invariably read "Inside Dope" first—maybe because it is always good reading—maybe because even after two years' association with refrigeration, BTU's, etc., still befuddle me.

Your column on your new book-publishing venture in the June 21 issue was a revelation to me. I particularly like what you said about the concentration of the book publishers in a tight little Eastern area. Here, we are always pleased when the West successfully challenges the cliques of the East—even when West is so far east as Detroit!

Enclosed is my order and one dollar for a copy of "Nectar and Oolie" for my son, who, though only two and a little bit, is wonderfully blessed with a love for books (with pictures).

LUCILLE L. HOOPER

Off the Record - - - By Ed Reed



G-E Gets Brockport Factory for Appliances

BROCKPORT, N. Y.—The General Electric Co. will take over an 80,000-sq. ft. factory here for the manufacture of electrical appliances, H. L. Andrews, vice president in charge of the appliance and merchandise department, has announced.

G-E expected to take title to the plant, formerly owned by Standard Brands, Inc., on July 15, he commented.

The one-story building of concrete and steel construction was built in 1946 and used briefly in food processing. It has been idle for over a year, however.

Andrews said that nearly 500 persons will ultimately be employed in the plant. He did not mention when operations would begin. The purchase price was not revealed.

R. C. Daly Will Head Schaefer Corp. Sales

MILWAUKEE—Robert C. Daly has been appointed sales manager of the E. H. Schaefer Corp., General Electric distributor for Wisconsin, E. C. Zabors, vice president and general manager of the firm, has announced.

Daly became associated with the E. H. Schaefer Corp. in 1947 as sales promotion and advertising manager. On Jan. 1, 1948, he was promoted to merchandise manager, the position he held until recently.

Daly is a Milwaukee resident and was graduated from Marquette university law school here in 1940. He has had several years experience in appliance merchandising and upon his return from 3½ years service in the air corps, served as a sales supervisor for the Burroughs Adding Machine Co.

AMERICAN PRODUCTS ARE SOUGHT BY IRAQI FIRM

N. H. Elias
Ar-Rashid Street
Baghdad, Iraq

Editor:

Being highly interested in importing American products and having had importation of radios, refrigerators, motors, fans, auto-spare-parts, and hardware.

Kindly arrange to let me have catalogs, prices, and offers from American manufacturers, exporters, and suppliers for my consideration.

In the meantime kindly note that I have special interest in importing the following lines:

1. Radio receiving sets, and spare parts.
2. Electrical apparatus all kind.
3. Electric machines, all kind (and tools).
4. Hardware, all kinds.
5. Typewriters.
6. Sewing machines, all kinds.
7. Electric hand drill.
8. Oil cook stoves (complete line of ranges).
9. Carpenter electric machines, and tools all kinds.
10. Carpenter apparatus all kinds.
11. Commutator slotting saws and milling cutters.

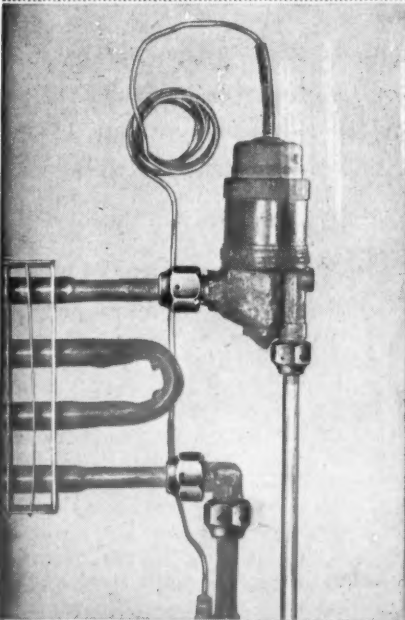
So, I should be much obliged if you could kindly arrange to put me in touch with suitable manufacturers, exporters, and suppliers in the above mentioned lines.

N. H. ELIAS

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CANADIAN
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137 Wellington St. W., Toronto, Ont.

STA-TITE THE REFRIGERATION FLARE NUT which cannot Creep or Work loose



Moisture will work its way along the threads, to fill the space between the fitting and the inside of the flare nut. Confined in this space, the water, in its attempt to freeze during the operating cycle, develops a tremendous pressure—16,400 p.s.i. at 20°F. Something has to give at such high pressures . . . (1) the nut may stretch, (2) the male fitting may collapse, (3) the copper tube flare may extrude . . . any one of which will allow the flare nut to loosen. You know the rest—moisture in the system and/or loss of refrigerant. A condition which has long baffled the refrigeration industry.

NOW—Superior engineers have found a positive cure—the new "STA-TITE" Flare Nut. By simply providing relief openings in otherwise standard flare nuts, the possibility of pressure being created is entirely eliminated . . . the flare nut stays tight!

Thousands of "STA-TITE" Flare Nuts already in service have yet to show a single failure. Moisture trouble, costly and annoying leaks, because of so-called "creeping" flare nuts, have been eliminated completely.

Get "STA-TITE" Flare Nuts from your jobber. Use them on all connections which are subject to frequent or occasional frosting and defrosting. Banish "creeping" and leaks forever!

"STA-TITE" is another Superior contribution to better refrigeration!

*U.S. Patent 2,323,099

NO. 134



SUPERIOR VALVE & FITTINGS COMPANY PITTSBURGH - 26 - PENNSYLVANIA

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Ranco... for Temperature Control Replacements

There's a Ranco Refrigeration Control for every replacement job. On special applications, for example, special power elements are often required, even though the controls are otherwise standard. You'll find that Ranco has a complete line of controls for such applications. Ask your Ranco wholesaler to show them to you.



Ranco Type O-1415 Temperature Control, for air temperature applications. External graduated scale. Knob adjustment for range (cut-in) and differential (cut-out).

World's Largest Manufacturers of REFRIGERATION CONTROLS

Parts Wholesalers--

(Concluded from Page 1, Column 2)

harbor no thoughts or suggest any revision of prices that will cut our margin of profit. For those of you who have already narrowed this margin we suggest you make an immediate adjustment.

"We believe that it is generally agreed that the refrigeration wholesaler is one of the important component departments of your company. Why cut our throats when in reality you are only cutting your own? You know that the profit derived from the sale to refrigeration wholesalers is your bread and butter. There is no chiseling of prices in your sales to us, but you find it necessary in your sales to original equipment manufacturers."

That this general idea of holding profit margins may have to be promoted to wholesalers themselves was indicated in a letter to a supplier from K. G. Wright, manager of the K & M Supply Co. of Tulsa, Okla.

"I realize that many wholesalers are trying to cut their own throats in not trying to take any percentage-wise increase, feeling that, for instance, where they made four cents before if they make four cents now they are coming out even. That most definitely is not true.

"Inasmuch as our rent has gone up something over 150%, our utilities, not including the telephone, have gone up only slightly, our phone bill over 100%, our labor 83%, our traveling expenses considerably, we believe that the same return, percentage-wise, should be maintained and intend to do so.

"I realize," Wright says, "that some items have not taken the rise that they should have in comparison with what many others have done. However, it seems to be a growing idea that all of these raises should not take into consideration the growing cost of doing business for the wholesaler."

Similar views have been expressed to manufacturers and suppliers by Ted Glou, head of Central Service Supply, parts wholesale firm with stores in Syracuse, N. Y. and Scranton, Pa. He also points out—

"The increase in freight rates alone, which is an item added to our costs in most cases, but does not enter into the selling price, has already cut our inadequate margin of profit.

"During the past several weeks we have been receiving price changes—the majority of them upward, and in several cases there has been a tendency to narrow the margin of profit to us," Glou asserts.

"The increase in costs which our suppliers have found necessary to make, in order to operate profitably, should also take into consideration the fact that our costs of operation have increased commensurate with yours, if not more so.

"In the interest of good business, we have attempted to cut out all the dead wood in our operation and streamline our organization as much as possible.

"Comparatively, it costs us as much, if not more, to operate as it does you," Glou has told his suppliers. "It is with these thoughts in mind that we suggest that in any revision of prices you will refrain from making any revisions that will cut our margin of profit.

"For those of you who have already narrowed this margin, we suggest that an immediate adjustment be made for the more profitable handling of your product."

'Cooler Inside' Ad Draws Patrons to Pharmacy

BINGHAMTON, N. Y.—The North Side Pharmacy, 500 Chenango St., is boosting summer traffic with newspaper advertising which emphasizes that the store is 100% air conditioned.

The advertisements point out that it's "20% cooler in our store—for your comfort." Copy says: "Come in out of the heat to enjoy our fountain department, our drug department, and shopping in all our various departments."

Cain Joins G-E Field Staff

CHICAGO—Merle B. Cain has been appointed a General Electric appliance representative in the North Central district, it has been announced by J. S. Strecker, district manager of appliance sales.

Drugstore Reach-In Keeps Drinks Cold for Hotel Users

KANSAS CITY—A 16-cu. ft., 4-door stainless steel refrigerator has sent sales of bottled drinks zooming upward at the main downtown store of Katz Super Drugstores, Inc., here.

The refrigerator, custom-built by a Kansas City refrigeration firm, is divided into four compartments, all all of which are easily available through swinging double-glass paneled doors.

Since the drugstore is located near several large hotels, where guests serve drinks in the rooms, and the beverages are kept cold enough so that it is not necessary to order ice cubes, the refrigerator has been a powerful drawing card, according to the management.

She Maintains a Record 22-Year-Old Grocery Store Manager Claims Case Raised Dairy Sales 25%

MINNEAPOLIS — Minnesota's youngest feminine grocery store manager—22-year-old Betty Anderson of Jefferson Grocery, Minneapolis—reports that since the addition of a new refrigerated self-service 11-ft. open dairy case, dairy sales shot up more than 25% over the previous month.

Miss Anderson, speaking from personal experience, declared she'd never seen anything like the use of the new Hussmann case for increasing sales. The case was installed by Allied Store Equipment Co. of Minneapolis.

"I've kept a record of sales," she said, "and during the first 30-day period since we installed the new refrigerated case, our vegetable sales zoomed up 40% and dairy sales were up 25%."

Sold on the merchandising benefits of refrigeration, Miss Anderson said she is planning on installation of additional grocery product cases throughout her store. The store was her father's and she worked in it for five years until 13 months ago, when at the youthful age of 21, she assumed management of the entire operation.

Maisel's Injunction Against Similar-Name Dealer Denied

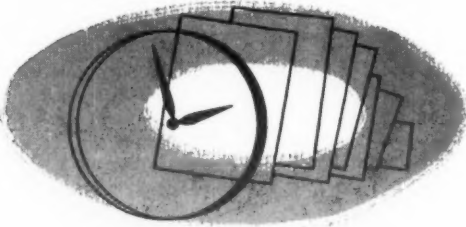
BUFFALO—Supreme Court Justice Lee L. Ottaway denied Maisel's, Inc., 915 Broadway, an injunction restraining Edwin Maisel, 911 Broadway, from using the name Maisel in the sale of merchandise within a mile of 915 Broadway. Both firms are electrical appliance dealers.

Justice Ottaway, who heard the suit in May, stated in part:

"Use of an individual's name in the conduct of his own business is not to be restrained except where there is present some special unfairness or unusual circumstance such as the protection of a trade name. . . . The proof here does not sufficiently establish unfairness nor such special circumstances."

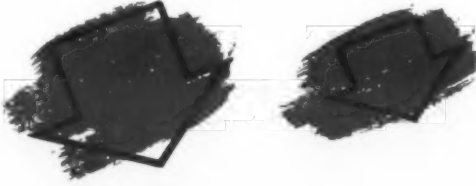
Q. Does Weber do market research just for you?

A. Yes—in a way. You see, while their market surveys are nationwide, they segregate each dealer's trading area. So—since my franchise is for an exclusive territory, the research Weber does here is done for me.



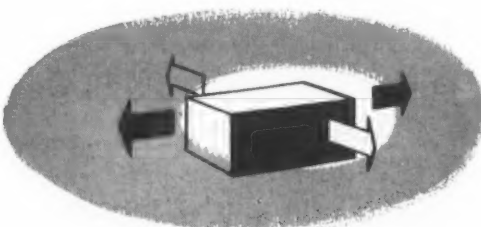
Q. Don't market conditions change?

A. Sure! Constantly! But Weber makes a continuous market study. In that way, they're always up to date. And with fresh and accurate information, I get the best of merchandising and sales help. I'm really sold on Weber's research as well as Weber equipment.



Q. Can you be sure Weber research is impartial?

A. Yes, because they have nationally recognized firms check their findings. A fifty-year-old firm like Weber would be pretty sure to guard their reputation. After all, the more reliable the information is, the higher the sales go.



Q. How does this research help you?

A. Well, for one thing, it shows me new outlets for refrigerated equipment. Then, too, it tells me almost to the unit the amount of equipment and kind of equipment I can sell. Naturally this helps me plan ahead, and makes all the Weber equipment I order completely salable.

Weber Showcase & Fixture Co., Inc.
5700 Avalon Boulevard, Dept. 10-748
Los Angeles 54, California

Gentlemen: Kindly send me full information on Weber equipment for my business. Also name of nearest Weber representative.

PLEASE PRINT PLAINLY

Name _____
Business _____
Address _____
City _____ Zone _____ State _____

Yes!—SUCCESSFUL DEALERS SAY—
market analysis helps sell worlds of



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